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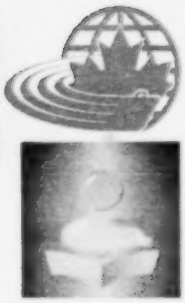
Research Paper

Culture, Tourism and the Centre for Education Statistics

Doctorate Education in Canada: Findings from the Survey of Earned Doctorates, 2005/2006



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Darren King, Human Resources and Social Development Canada

Judy Eisl-Culkin and Louise Desjardins, Statistics Canada

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Note of appreciation

Canada owes the success of its statistical system to a long-standing partnership between Statistics Canada, the citizens of Canada, its businesses, governments and other institutions. Accurate and timely statistical information could not be produced without their continued cooperation and goodwill.

Acronyms

CIHR	Canadian Institute of Health Research
HRSDC	Human Resources and Social Development Canada
NSERC	Natural Sciences and Engineering Research Council of Canada
PSIS	Post Secondary Information System
SED	Survey of Earned Doctorates
SSHRC	Social Sciences and Humanities Research Council of Canada

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1. Introduction

"Doctorate Education in Canada: Findings from the Survey of Earned Doctorates, 2005/2006" is the third paper in a series of reports written by the Learning Policy Directorate of Human Resources and Social Development Canada (HRSDC) and the Centre for Education Statistics of Statistics Canada. Each report presents an overview of doctoral education covering annual data from the Survey of Earned Doctorates (SED) from each of the three years of the survey's existence (2003/2004, 2004/2005 and 2005/2006).

The Survey of Earned Doctorates is a key source of information regarding the training of doctoral graduates in Canada. It provides information on the pathways of these highly qualified graduates through the education system and sheds light into the expectations of graduates as they transition into employment and postdoctoral education.

In this 2005/2006 report, special attention has been given to the foreign born among the doctoral graduates. Foreign-born graduates represent more than one in every five graduates in the 2005/2006 academic year, and over half of all doctoral graduates living in Canada in 2006. Canada's immigration policy, with its emphasis on educational attainment, ensures that the foreign born will continue to account for a large proportion of Canada's doctorate degree holders. Furthermore, attracting foreign-born talent to Canada will be important if Canada is to increase the number of doctoral degree holders since growth in the graduates from Canadian institutions has been minimal. One of the key challenges will be to retain graduates, both foreign-born and Canadian-born, in Canada upon the completion of their degree.

Also unique to this third report, is the ability to discuss trends over the three years of survey data.

2. Data sources

The Survey of Earned Doctorates (SED) consists of a questionnaire given to all graduates completing a doctorate degree from each of the doctorate granting institutions in Canada, thus SED intends to be a Census of doctoral graduates. The 2005/2006 survey results represent 3,972 graduates who received a questionnaire. Of those who received a questionnaire from their institution, 54% responded to the survey, which compares to a response rate of 60% for 2003/2004 and 54% for 2004/2005. Survey respondents have been weighted to accurately reflect the doctoral graduate population characteristics.

It was estimated that approximately 3% of doctoral graduates (or 115 graduates) were excluded from the survey due to non-response from the PhD granting institutions. This compares to non-response rates of 9% in 2003/2004 and 1% in 2004/2005. While cross-sectional characteristics are expected to be unaffected by institution non-response, direct comparisons of the numbers between years are not recommended.

The United States has been conducting a similar survey, also called the Survey of Earned Doctorates. Many questions in the Canadian SED have been modeled on the United States version. Therefore, comparisons to the United States are useful for placing the Canadian figures in context. Unlike the American SED, Canada's Survey of Earned Doctorates includes doctoral degrees that do not have a research focus. In instances where comparisons are made to the United States, non-research oriented degrees will be omitted from the sample. Non-research doctoral degrees accounted for a small proportion (1.4%) of the degrees awarded in Canada in 2005/2006.

In addition, it should be noted that in several places proportions have been reported from the 2006 Census. These figures refer to all respondents who indicated in the 2006 Census that their highest level of education was an earned doctorate. In contrast, results presented from SED refer to graduates of a particular academic year. Furthermore, SED only captures data on doctoral graduates from Canadian institutions, and thus excludes a proportion of Canadians who earned a doctorate degree from an institution outside of Canada.

For simplicity, and occasionally to meet conditions of confidentiality, the fields of study have been collapsed in order to provide larger samples. Even with these collapsed fields there are occasions when there are still insufficient numbers of graduates in a category to report the proportions. The fields are collapsed as follows:

Comparison of detailed field of study list to collapsed list

Life sciences
• Agricultural sciences
• Biological sciences
• Health sciences
Engineering
• Engineering
Physical sciences
• Computer and information sciences and mathematics
• Chemistry
• Other physical sciences
Social sciences
• Psychology
• Social sciences
Humanities
• Humanities
Other programs
• Education
• Professional fields / Other fields

To ensure confidentiality and accuracy, proportions have not been reported if the unweighted cell counts are less than five, or if the coefficient of variation was greater than 16.5% (although a figure with a coefficient of variation between 16.6% and 33.4% may be reported, but with a note that they should be used with caution). All significance tests refer to the 5% confidence level unless otherwise stated.

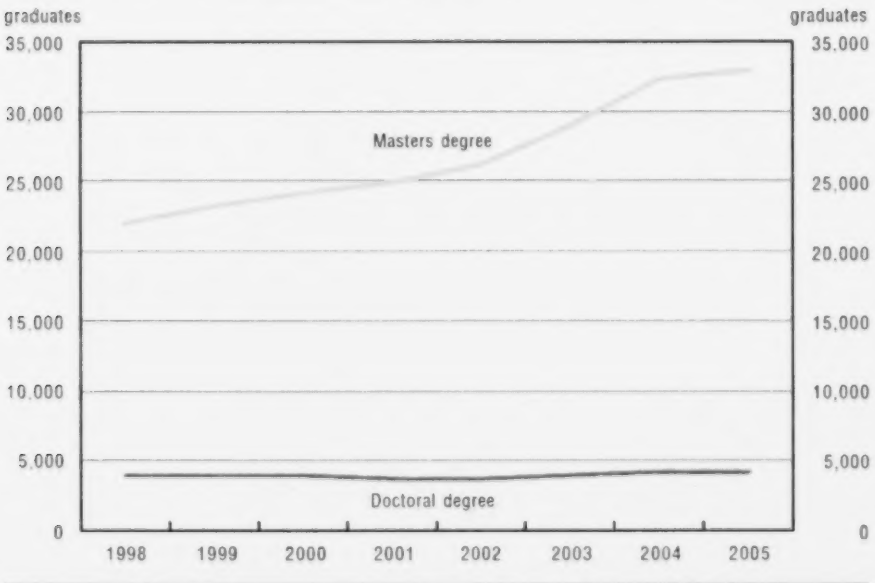
3. Doctoral program enrolment and completion in Canada

Although doctorate degree holders account for only a small proportion of the Canadian population, they play an important role in the health and well being of our economy and society. After having spent so much time in the education system, doctoral graduates are often the primary originators of new research and key instruments in the transmission of knowledge to future generations.

In the 2005/2006 academic year, enrolment in doctoral programs increased by 6.1% to reach 36,700. This was the largest percentage increase in enrolment among all programs at the university level and it followed a period of sustained enrolment growth in doctoral programs beginning around 2001. In the previous three years enrolment grew at an average of 8.1% a year[1]. However, the increasing enrolment of the preceding four years has yet to translate into more doctoral graduates. Figures from the Post-secondary Student Information System (PSIS) revealed that the number of doctoral degree recipients was only slightly higher than it was almost a decade earlier. In 2005 there were 4200 students who received a doctoral degree in Canada compared to 4000 in 1998.

Chart 1

Graduate degree recipients from Canadian institutions



Source: Statistics Canada, Post Secondary Student Information System (PSIS), 1998 - 2005.

The United States has not experienced the same sluggish growth in the number of doctoral graduates. In the 2005/2006 academic year the number of graduates from American institutions increased by 5.1% to reach 45,596 research doctoral degrees. This was 8.2% higher than the number of degrees granted in 2003/2004.[2]

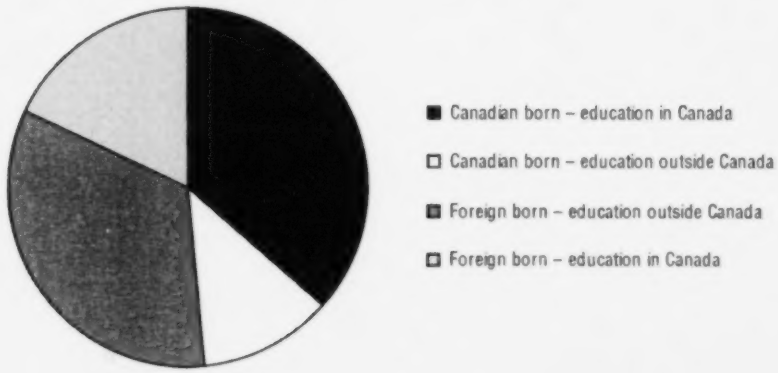
Canadian and foreign-born doctoral graduates

Training doctoral graduates in Canadian institutions is only one way that doctorate degree holders are added to the workforce. The foreign education of Canadians plays just as significant a role in adding advanced degree holders to the economy. According to the 2006 Census, 46% of all doctoral graduates in Canada received their training from an institution outside of Canada. In contrast, 34% of Canadians with a master's degree and just 20% of Canadians with a bachelor's degree were educated outside of Canada.

Some of the foreign educated doctorate holders are Canadian born who completed their studies abroad, while some are foreign-born doctorate holders. It is unclear from the Census what proportion of the foreign born immigrated to Canada having already completed their doctorate; however, the majority of the foreign-born doctorate holders have completed their degrees outside of Canada.

Chart 2

Canadian doctorate holders by birth and place of education

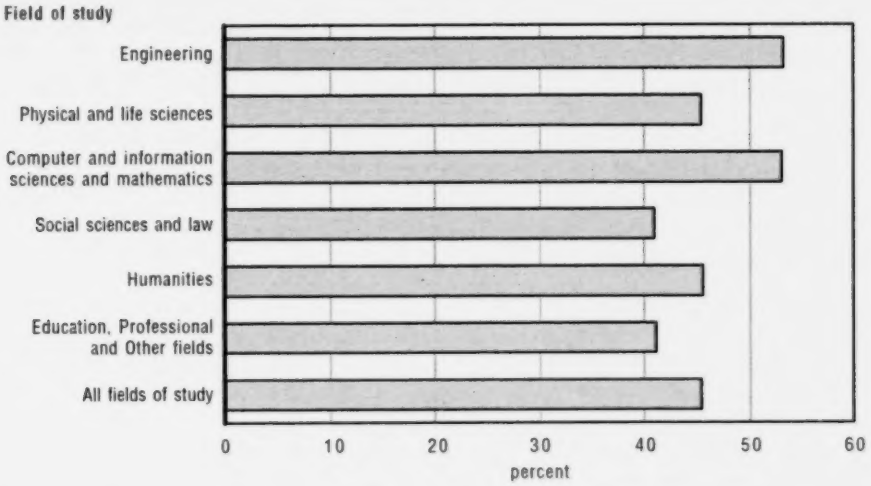

Canadian born – education in Canada
Canadian born – education outside Canada
Foreign born – education outside Canada
Foreign born – education in Canada

Source: Statistics Canada, Census, 2006.

Canadians with a doctorate degree in engineering or in mathematics and computer science were the most likely to have received their training from a foreign institution. There were, however, smaller differences in the proportion of foreign educated graduates across fields of study than might be expected.

Chart 3

Proportion of foreign educated doctorate degree holders by field of study

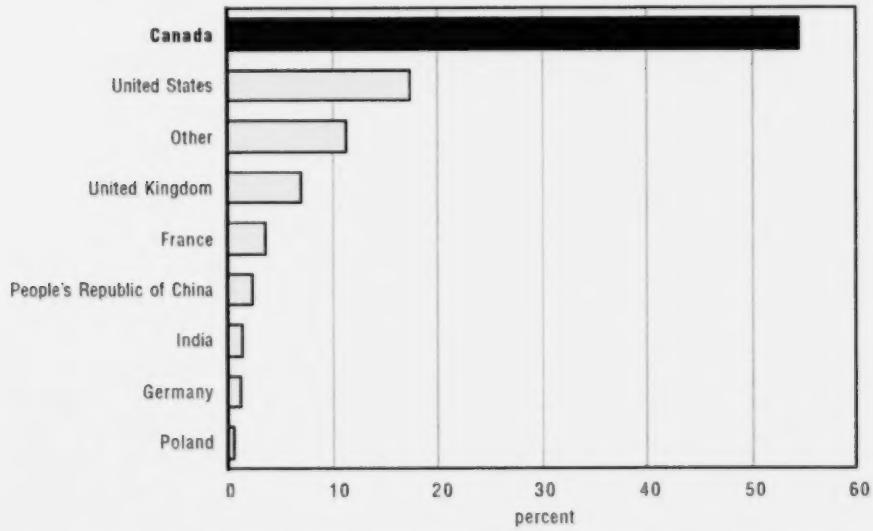


Source: Statistics Canada, Census, 2006.

The most common country for doctoral education outside of Canada was the United States, with a little less than 2 in every 5 foreign educated doctoral graduates having studied there. The next highest was the United Kingdom, followed by France.

Chart 4

Canadian doctorate holders location of degree



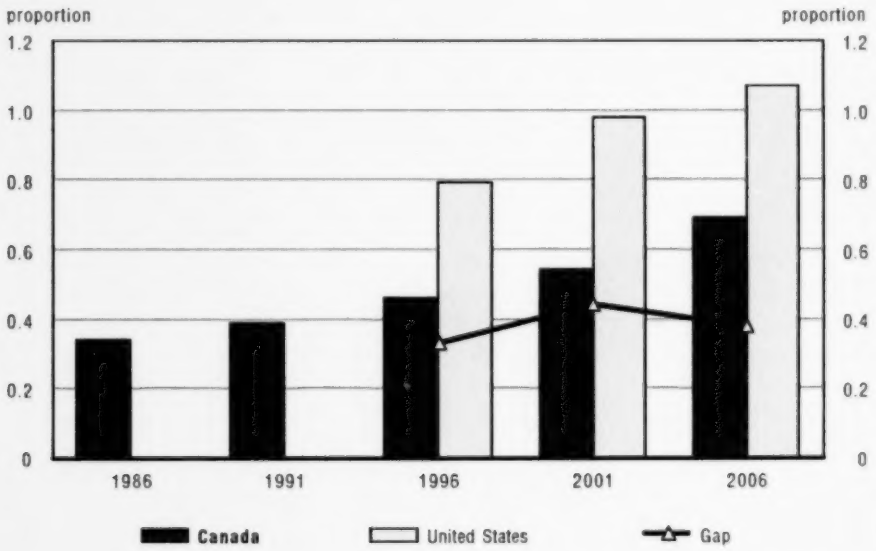
Source: Statistics Canada, Census, 2006.

The proportion of doctorates in the population continued to grow

The combination of Canadian and foreign educated doctoral graduates has led to an increase in the proportion of Canadians with a doctorate degree. In 2006 approximately 0.7% of Canadians 15 years and older had earned a doctorate[3]. This is twice the proportion of 20 years earlier. While this increase is good news, Canada continued to lag behind the United States. In 2006 1.1% of Americans over the age of 15 had earned a doctorate degree. Not only were there more graduates, the gap between Canada and the United States increased between 1996 and 2006 (from 0.33% to 0.38%).

Chart 5

Proportion of doctorates in the population, aged 15 and older



Sources: Statistics Canada, Census, 2006 and American Current Population Survey (CPA).

4. Characteristics of doctoral graduates

While Census data provides context to the overall picture of doctoral degree holders in Canada, SED yields a snapshot of doctoral degree recipients at a point in time, the education system that has trained them, and their plans for the labour market or further studies.

Demographic profile

Doctoral graduates spent a considerable number of years in the education system, and some began their studies only after first gaining experience in the labour market. The median age of doctoral graduates in 2005/2006 was 33 years old, the same as for the previous two years. Twenty-three percent of graduates were younger than 30 years old at the time of graduation, 53% were between 30 and 39 years of age, and 24% were over the age of 39. Nearly 7 in 10 graduates were either married or in a common law relationship and 36% had dependent children.

A large proportion of doctoral graduates had parents or guardians with advanced degrees. Two percent of graduates reported that their mother had a doctorate degree, 8% indicated that their mother had a master's degree, and 3% indicated that their mother had a professional degree. Educational attainment was even greater for the fathers of graduates, with 8% indicating that their father had a doctorate degree, 10% had a father with a master's degree and 8% had a father with a professional degree.

Nonetheless, it is creditable that the largest proportion of students reported parental education below high school completion. Twenty-three percent of graduates indicated that their mother had not completed high school and 20% of graduates indicated that their father had not completed high school.

Distribution of doctoral graduates by their field of study

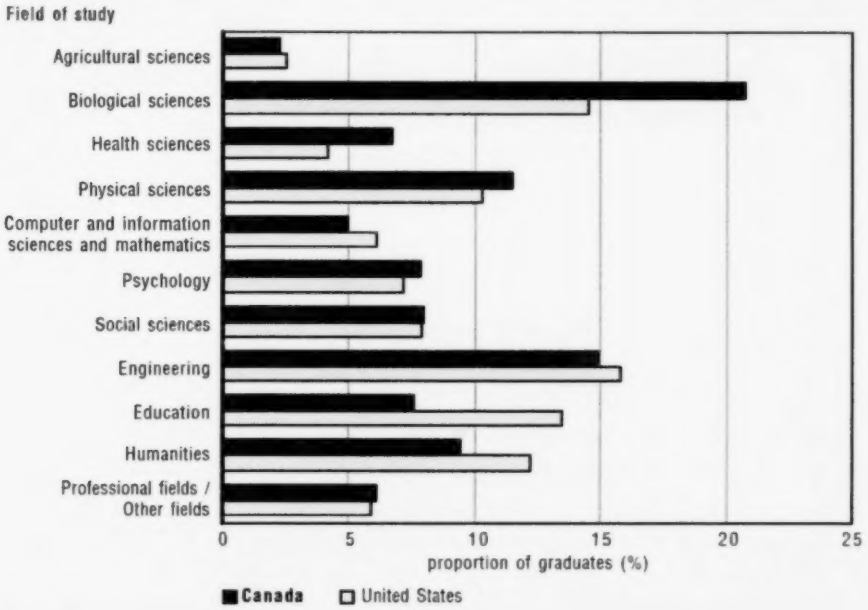
The biological sciences continued to be the most popular field of study among graduates. In the 2005/2006 academic year one fifth of doctorates awarded were in this field, as was true in the two preceding years. The next largest field of study was engineering with 15% of graduates, followed by physical sciences with 11% of graduates.

There were some small changes in the field of study choice since the 2003/2004 academic year. Increases were observed in the proportion of graduates in health sciences (two percentage points) and in professional fields (one percentage point). These differences were offset by a decrease in psychology (two percentage points) and agricultural sciences (one percentage point) as well as in the humanities (a three percentage-point decrease).

Comparing the distribution of field of study in Canada and the United States highlights Canada's strength in the biological sciences as well as in health sciences. Canadian graduates were six percentage-points more likely to have been enrolled in the biological sciences and two percentage-points more likely to have been enrolled in health sciences. Conversely, American graduates were more often enrolled in the humanities (two percentage-point difference) and in education (six percentage-point difference).

Chart 6

Distribution by field of study for Canada and the United States



Sources: Statistics Canada, Survey of Earned Doctorates, 2005/2006 and Hoffer, T.B., M. Hess, V. Welch, Jr., and K. Williams. 2007. *Doctorate Recipients from United States Universities: Summary report 2006.*

Gender composition of graduates

For several years women have accounted for the majority of students at Canada's universities. In 2005, 62% of graduates at the undergraduate level and 52% of graduates at the master's level were women.[4] However, this trend has yet to translate into equality at the doctoral level. According to the SED, women accounted for 44% of doctoral graduates in the 2005/2006 academic year. This was higher than the 2003/2004 level of 43%, but below the previous year's proportion of 46%.

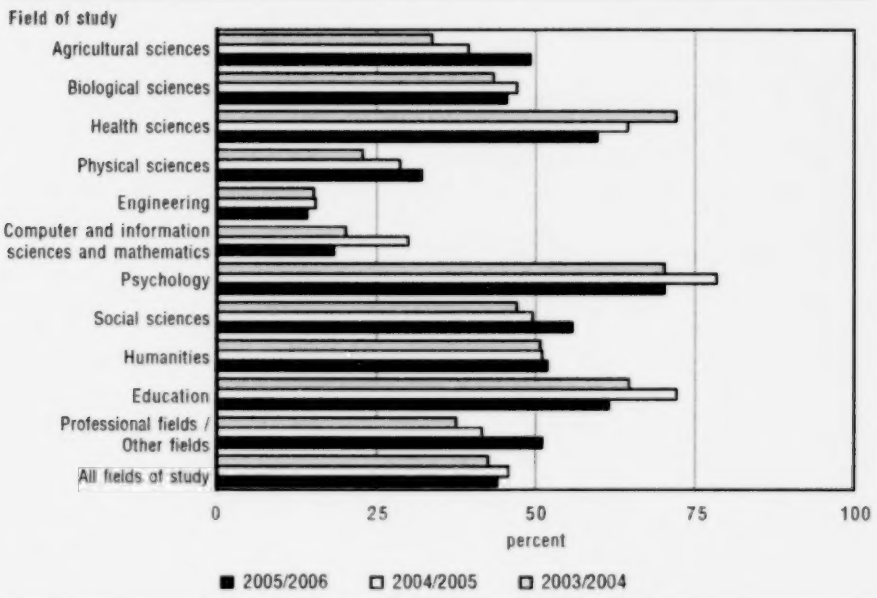
When visa and foreign students were examined separately the results showed a somewhat different picture. Since visa and foreign students were disproportionately male, when these students were excluded from the analysis the proportion of Canadian graduates who were women was 48%. In contrast, only 32% of foreign graduates were women. The proportion of foreign graduates who are women has grown by five percentage points since the 2003/2004 graduating class, while the proportion of Canadian graduates who are women was roughly the same.

The proportion of women remained widely varied across fields of study, but showed movement towards greater gender equality

There are also interesting differences in the gender distribution across fields of study. Men made up the majority of graduates in engineering (86%), computer and information sciences and mathematics (82%), physical sciences (68%), and biological sciences (54%). Conversely, women were the majority in psychology (70%), education (62%), health sciences (60%), and social sciences (56%).

Chart 7

Proportion of women by field of study



Source: Statistics Canada, Survey of Earned Doctorates, 2005/2006.

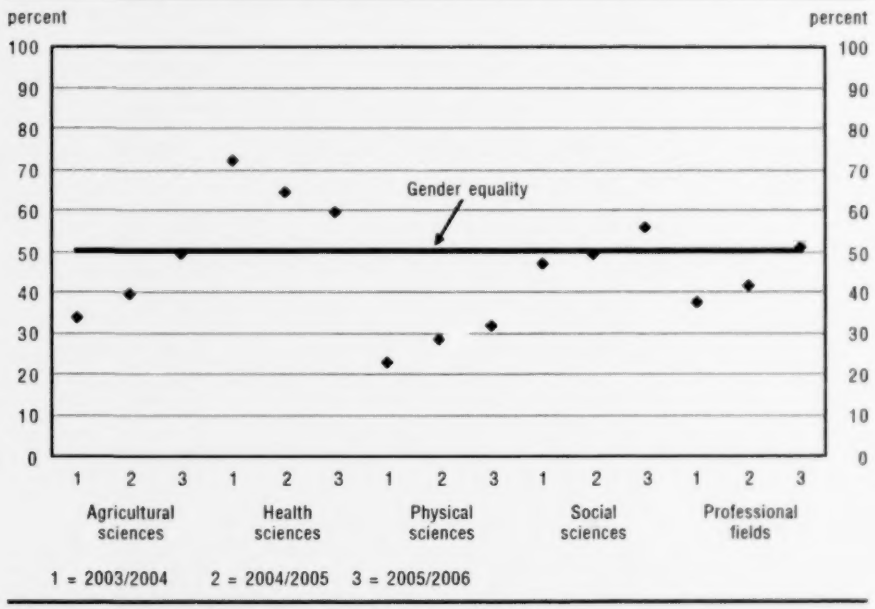
It is worth noting that there appears to be movement towards greater equality in several different fields of study since the 2003/2004 graduating class. In agricultural sciences the proportion of women grew from 34% in 2003/2004 to 49% in 2005/2006. Similarly, in the physical sciences the proportion of women grew from 23% to 32%, and in professional fields/other fields the proportion of women grew from 38% to 51%. On the other hand, the proportion of women in health sciences decreased from 72% to 60% over the same time period. There was only one field of study which showed a significant change that was not towards greater equality. Between 2003/2004 and 2005/2006 the proportion of women in the social sciences increased from 47% to 56%. In all other fields of study the change in the proportion of female graduates between 2003/2004 and 2005/2006 was not statistically significant.

The 2004/2005 graduates had the largest proportion of women of any of the three years observed in the SED. As a result, between the 2004/2005 and 2005/2006 academic years the proportion of women dropped significantly in three fields

of study: computer and information sciences and mathematics (twelve percentage-points), psychology (eight percentage-points), and education (eleven percentage-points).

Chart 8

Changes over time in the proportion of women by field of study



Source: Statistics Canada, Survey of Earned Doctorates, 2005/2006.

Foreign or visa students at Canadian institutions

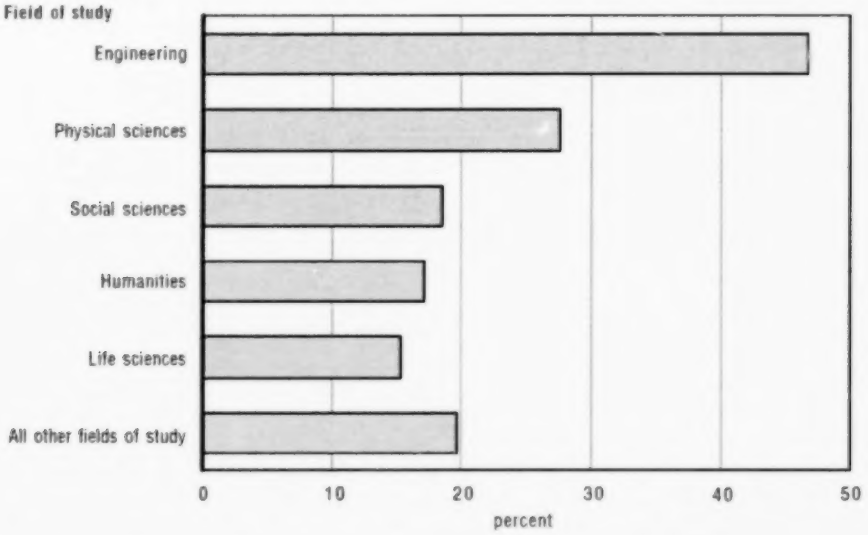
It has been noted that a large proportion of the doctorate degree holders in Canada obtained their education from outside the country. It is also the case that many foreign students came to Canada to obtain their education. In the 2005/2006 academic year almost one quarter (23%) of the students who earned their doctorate degree were foreign or visa students. This proportion has been unchanged over the previous three years.

The United States had a large proportion of foreign doctoral graduates. In the academic year ending in 2006, 33% of doctoral graduates in the United States were foreign or visa students, ten percentage points higher than in Canada.

There were large differences in the proportion of visa and foreign students across fields of study. For example, almost half of the graduates in engineering were foreign or visa students compared with only 15% of graduates in life sciences. Furthermore, while the proportion of foreign or visa students in general had not changed significantly in the previous two years, there has been an increase of nine percentage points in the proportion of foreign students in the social sciences since the 2003/2004 academic year, coupled with a decrease of nine percentage points in the proportion of foreign or visa students in physical sciences.

Chart 9

Proportion of visa or foreign students by field of study



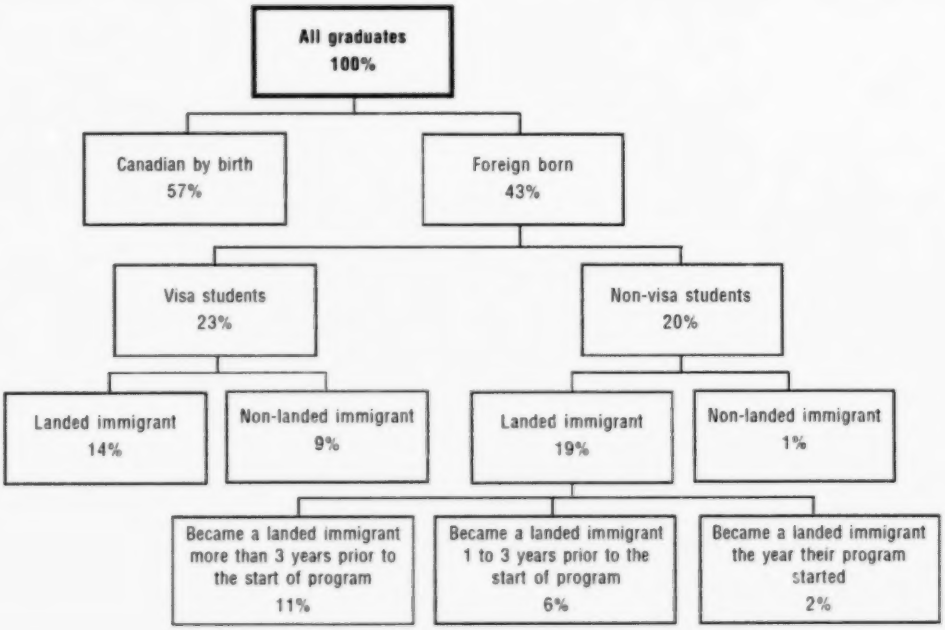
Source: Statistics Canada, Survey of Earned Doctorates, 2005/2006.

Immigration status of doctoral graduates

Foreign students may come to Canada to study as a visa or foreign student, or they may come as a landed immigrant just prior to beginning their program. Some of these students will remain in Canada upon the completion of their degree, but others will return to their country of origin. Understanding the pathways that international students take is important in light of the magnitude of the foreign born in Canada's stock of doctorate holders. Figure 1 below outlines the pathways of foreign-born graduates to doctoral studies.[5]

In 2005/2006 just over half of the foreign-born graduates began their program as a visa student. Eight out of twenty who were foreign born, non-visa students became a landed immigrant in Canada in the three years prior to the start of their doctoral program.

Figure 1
Pathways of foreign-born doctoral graduates



Note: The proportion of foreign-born non-visa students who indicated that they were not a landed immigrant should be used with caution.
Source: Statistics Canada, Survey of Earned Doctorates, 2005/2006.

It is notable that over half the doctoral graduates who began their program as a visa student became a landed immigrant in Canada. This represents 14% of all graduates from the 2005/2006 academic year.

It is also interesting that 8% of non-visa foreign students became landed immigrants in Canada either in the same year that they began their doctoral program or in the three years prior to beginning their program. Thus, considering only visa or foreign students underestimates the magnitude of international students at Canadian institutions and the ability of Canadian universities to attract foreign talent into Canada.

Program length

The path to a doctorate degree can be a long road for many students. Graduates had often completed several degrees, beginning with the bachelor's level and progressing through graduate school, en route to their doctorate degree. The median doctoral graduate took 13 years, 9 months from the beginning of their first bachelor's degree to the completion of their doctorate degree. During this period, almost one third of graduates (31%) had earned at least one other degree, in addition to their first bachelor's degree and most recent master's degree. A master's degree was a prerequisite for entry into doctoral studies for two thirds (68%) of the graduates and four graduates in five had completed a master's degree prior to their doctorate.

The average length of time that graduates took to complete their doctorate program was five years and nine months, which was the same as in the previous year, but one month shorter than it had been in the 2003/2004 academic year. There were a small number of graduates who took much longer to complete their program.

Since a small number of graduates who have a long period of study may have an undue affect on the mean, the average can be a somewhat misleading measure of the typical program length. For this reason the median, which is equal to the value of the observation at the 50 percentile, is the preferred measure of program length.

The median time to completion for doctoral graduates varied across fields of study

The median length of time that doctoral graduates took to finish was five years and four months, five months shorter than the average. This was no different than the median length of time in the 2003/2004 academic year. The shortest median program was engineering, where in 2005/2006 the median length was four and one half years, four months shorter than it had been in 2003/2004. The longest median time to completion was in the social sciences, where the median time to graduate was six and one quarter years.

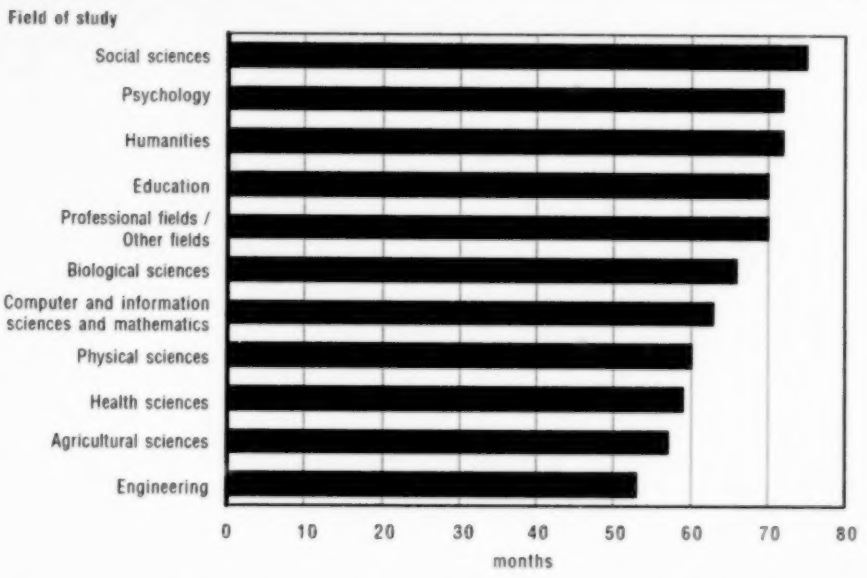
There were only two instances where the median time to completion had changed from the 2003/2004 academic year. In addition to engineering, graduates in a professional program saw an increase of five months in the median time to completion over the same period of time.

The length of time that graduates took to complete their studies varied considerably by fields of study. Engineering, agricultural sciences, health sciences, and physical sciences each had median program lengths that were below the overall median. Social sciences, psychology, humanities, education and professional fields had median program lengths that were above the overall median. Computer, information science and mathematics, as well as biological sciences were at the overall median time to completion.

For most graduates, time was split between course work and preparing a dissertation or a thesis. The 2005/2006 graduates spent 1.2 months working on their dissertation for every month spent doing course work. Again, there were large differences among fields of study. Graduates in engineering, a program with a low median time to completion, spent a large proportion of their time working on a dissertation or thesis (1.6 months of dissertation work for every month of course work). In contrast, graduates in the humanities averaged 0.7 months of dissertation or thesis work for each month spent doing course work.

Chart 10

Median time to completion



Source: Statistics Canada, Survey of Earned Doctorates, 2005/2006.

5. Doctoral graduates' sources of funding

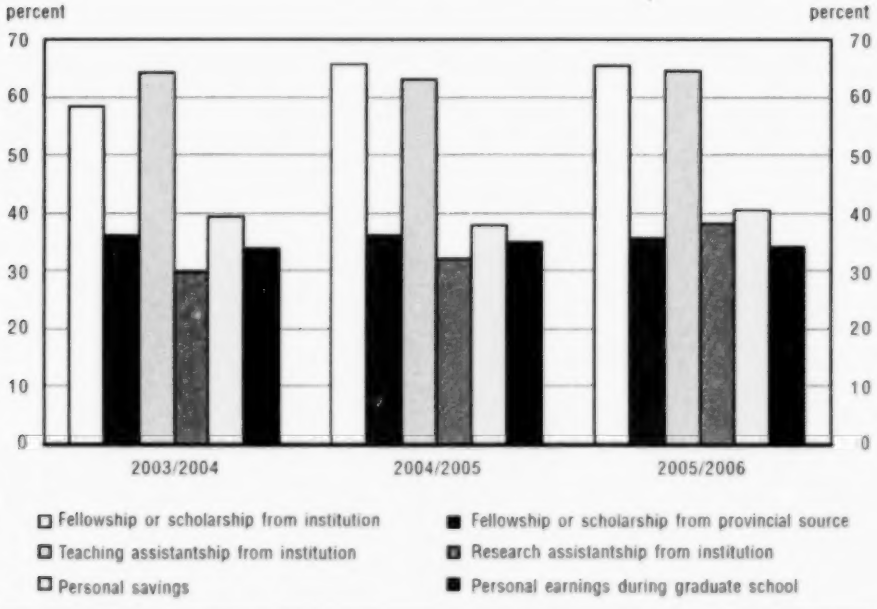
The Survey of Earned Doctorates asked respondents to identify all sources of financial support during graduate school from amongst a list of 28 choices. The top five sources identified were from fellowship or scholarship from the student's own institution (65%), followed by teaching assistantship from the student's own institution (65%), personal savings (41%), research assistantship from the student's own institution (38%) and fellowship or scholarship from a provincial source (36%).

There was an increase in the proportion of graduates reporting that they had received a research assistantship

In 2005/2006 research assistantships from the graduate's institution increased to 38% showing a six percentage point increase over the previous year, and surpassing personal earnings during graduate school (34%) and spouse's, partner's or family earnings and savings (33%) as a source of funding for the first time in three years.

Chart 11

Most common sources of financial support



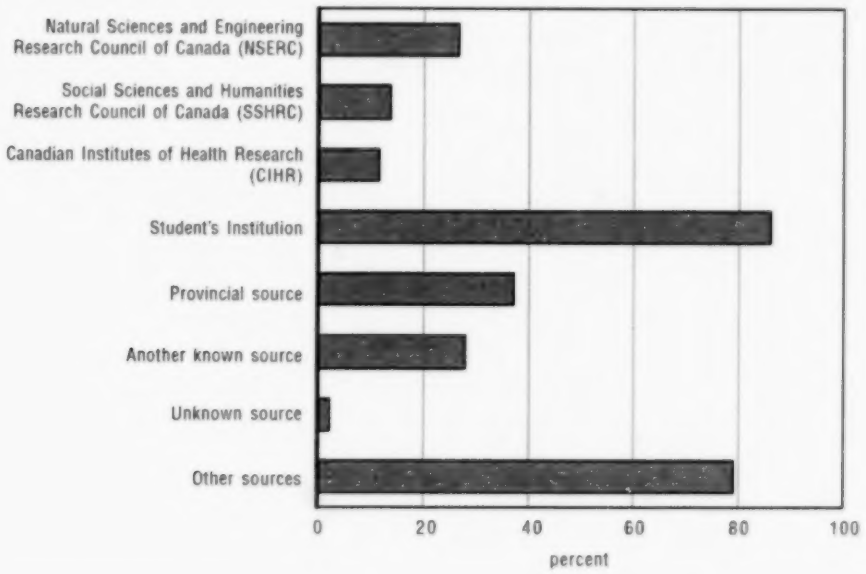
Source: Statistics Canada, Survey of Earned Doctorates, 2005/2006.

Universities were major contributors of funding for doctoral graduates

There are many sources that provide fellowships or scholarships, teaching assistantships and research assistantships, however, the most common source was from the students own institution. In the 2005/2006 academic year eight out of every ten (86%) students stated receiving some financial support from their own institution. The next largest sources came from the province (37%), another known source, Natural Sciences and Engineering Research Council of Canada (NSERC), Social Sciences and Humanities Research Council of Canada (SSHRC), Canadian Institutes of Health Research (CIHR) and unknown sources.

Chart 12

Sources of financial support during graduate school



Source: Statistics Canada, Survey of Earned Doctorates, 2005/2006.

Fellowships and scholarships were the main source of support for doctoral graduates

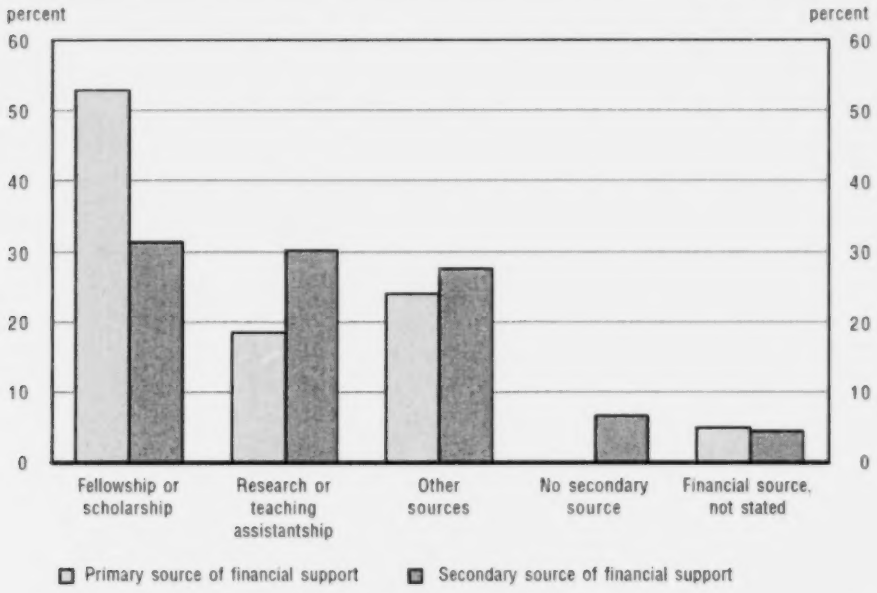
Since the monetary amount of financial support may vary from source to source, the survey asked respondents to choose among all the sources they selected as to which one they considered their primary and secondary source of financial support.

About half (53%) of all doctoral graduates said that their primary source of financial support came from fellowships or scholarships, 19% indicated receiving support from a research and teaching assistantship and nearly one quarter (24%) from other sources of support. These other sources include personal savings or spouse's/partner's or family earnings or savings, personal earnings during graduate school, loans, foreign support and employer reimbursements or assistance.

Among graduates who indicated a secondary source of financial support, a similar proportion reported fellowships or scholarships (31%), research or teaching assistantship (30%) and other sources (27%).

Chart 13

Sources of primary and secondary financial support during graduate school

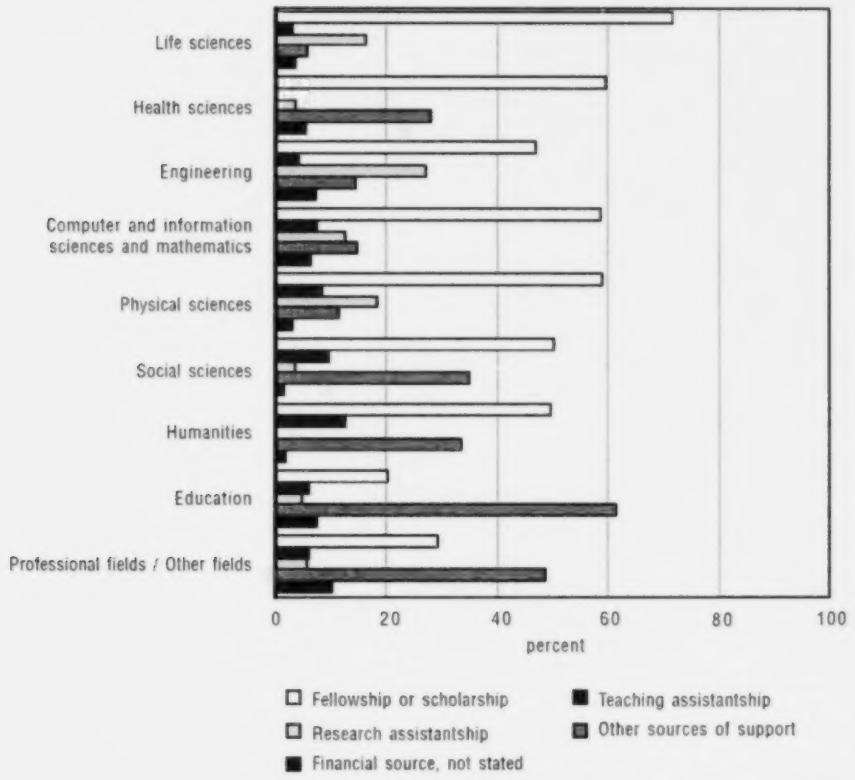


Source: Statistics Canada, Survey of Earned Doctorates, 2005/2006.

Primary sources of support differed by field of study. Students in the science fields, engineering, computer and mathematics and humanities indicated that they relied on fellowships or scholarships as their primary source of support. Conversely, students in the education and professional / other fields relied more on "other sources" of support. For the engineering and physical science fields, research assistantships were higher than "other sources" of support.

Chart 14

Primary sources of financial support by field of study



Source: Statistics Canada, Survey of Earned Doctorates, 2005/2006.

Levels of indebtedness

Doctoral graduates were asked about the amount of debt they will owe that was directly related to their undergraduate and graduate education. Just under half (49%) of all graduates did not owe any debt related to their studies. This number is comparable to that of the United States (52%). One in ten (11%) owed a debt related only to their undergraduate studies, two in ten (22%) owed a debt related only to their graduate studies and 18% owed a debt related to both their undergraduate and graduate studies.

Graduates in engineering and other fields were most likely to have no education related debt than any other field of study. About half of doctoral students in physical sciences, education and life sciences students had no education related debt, whereas graduates in the humanities and social sciences were more likely to have education related debt.

Students in professional and other fields, education, humanities and social sciences fared better then their counterparts in the United States.

Text table 1

Education related debt by field of study (proportion with no debt)

	Canada	United States
	percent	percent
Life sciences	45.7	51.8
Engineering	59.9	67.5
Physical sciences	55.0	63.3
Social sciences	39.1	37.9
Humanities	43.6	40.9
All other fields	53.6	...
Education	51.4	49.0
Professional and other	56.3	50.3
All fields	49.2	52.4

... not applicable

Note: Canadian figures exclude non-research oriented degrees, for comparison with the United States.

Sources: Statistics Canada. Survey of Earned Doctorates, 2005/2006 and Hoffer, T.B., M. Hess, V. Welch, Jr., and K. Williams. 2007. *Doctorate Recipients from United States Universities: Summary report 2006.*

A smaller proportion of women completed their studies without any education related debt compared to their male colleagues

Men fared slightly better than women concerning education related debt. More men had no education related debt compared to women. Fewer men had undergraduate debt only and less graduate debt only, whereas women had a lower proportion of debt related to their undergraduate and graduate studies.

Text table 2

Education related debt by gender

	Male	Female
	percent	percent
Graduate debt only	21.0	24.2
No debt	50.1	47.6
Undergraduate and graduate debt	18.1	17.0
Undergraduate debt only	10.8	11.2

Source: Statistics Canada, Survey of Earned Doctorates, 2005/2006.

Women had more graduate debt then men however the greatest proportion of their graduate debt was $10,000 or less (39% for women versus 34% for men).

Foreign or visa doctoral graduates had similar levels of debt from their graduate studies

Four percent of foreign or visa doctoral students owed a debt related to their undergraduate studies only, which was nearly nine percentage points lower than Canadian doctoral students (13%). Thirteen percent of foreign or visa students owed a debt related to their undergraduate and graduate studies versus 19% of Canadian students. Foreign or visa students as well as Canadian doctoral students were almost evenly represented among those with debt from graduate studies only (23% versus 22%).

6. Postgraduate plans of doctoral graduates

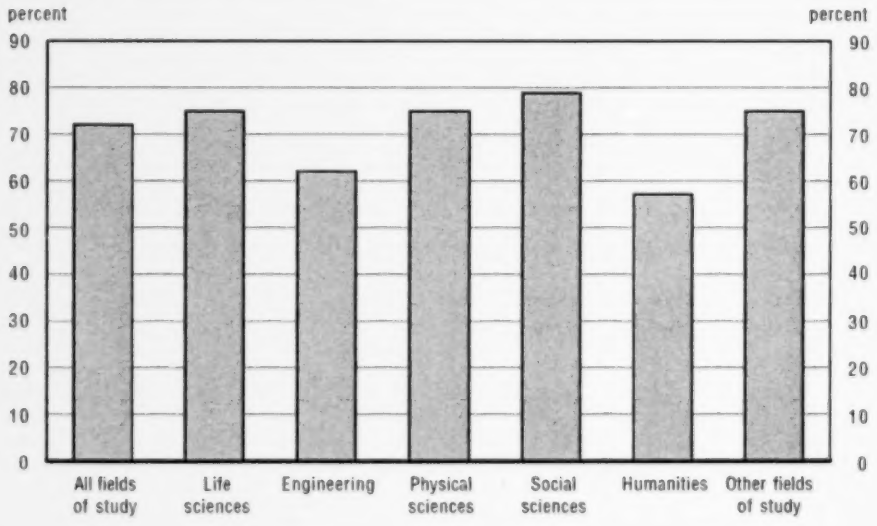
Upon graduation, doctoral recipients may return to a previous job, start a new one, pursue further studies, take time off or undertake a combination of activities. They may already have definite commitments for work or study, be in the process of making those plans or still be undecided. This section deals with graduates who have definite and immediate plans after graduation.

More than seven out of ten graduates in 2005/2006 had definite plans for employment or post-doctorate studies or research, which was comparable to the proportion observed in 2004/2005 and also that of American graduates.

A little more than half of the doctoral recipients had signed a contract or made definite commitment for other work or study, and 19% were returning to, or continuing with, the same employment/position that they had held before graduation; these proportions being similar to the two preceding years. The proportion of graduates with definite plans was comparable among most fields of study varying between 75% and 79%, except in engineering (62 %) and the humanities (57%).

Chart 15

Percentage of doctoral graduates with definite plans for work or study



Source: Statistics Canada, Survey of Earned Doctorates, 2005/2006.

There were no differences between these results and those of the two previous years, except in the fields of life sciences and humanities. In 2005/2006, the proportion

of life sciences graduates with definite plans dropped by slightly more than five percentage points compared with 2003/2004 and more than three percentage points compared with 2004/2005.

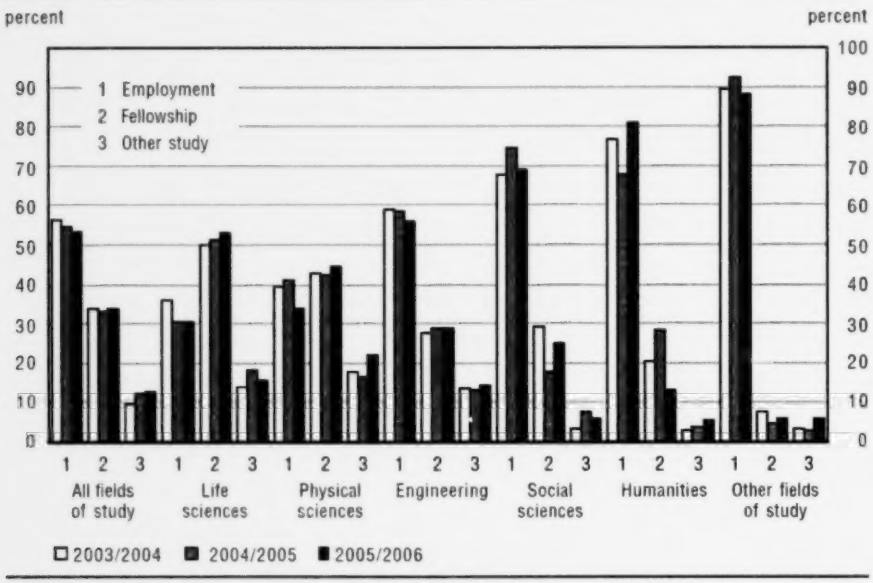
The proportion of graduates entering the workforce declined as the proportion of graduates pursuing further studies increased

More than half the graduates (53%) with firm plans indicated that they would enter the work force after graduation. The rest were planning to pursue further study with a postdoctoral fellowship (34%), or other training/study activities such as internships, clinical residencies, etc. (13%). Compared to graduates from 2003/2004 the number of graduates who were planning to work decreased slightly by about three percentage points, while the number planning to pursue other training or study increased by the same amount. On the other hand, the number of doctoral recipients entering postdoctoral programs remained the same.

Graduates from the "other fields of study" group, which includes education and professional programs, were more likely to work after graduation (88%) as were graduates from humanities (81%), compared to social sciences (69%) and engineering (56%). However, plans for further study or training continued to be more common among graduates in life sciences (69%).

There were marked differences with the class of 2004/2005. First, more physical sciences graduates were planning to pursue studies rather than enter the work force (by seven percentage points). Next, fewer graduates from social sciences and other fields of study (six and five percentage points), but many more students from humanities (increase of thirteen percentage points) were planning to work in 2005/2006 than in 2004/2005.

Chart 16
Definite post-graduation plans of doctoral graduates



Source: Statistics Canada, Survey of Earned Doctorates, 2005/2006.

In Canada, the number of doctoral recipients with plans for further study or training through a postdoctoral fellowship or other arrangement was thirteen percentage points higher than in the United States: 47% and 34% respectively.

Graduates primary work activity

Graduates with firm plans for employment were divided between the two main activities of research and development and education. Just over one third of graduates reported that their primary work activity would be associated with research and development (35%) while another third of graduates indicated teaching as their primary activity (37%). A further 19% identified professional services as their primary activity and 9% indicated management and administration.

Graduates from the fields of engineering, life sciences and physical sciences were still the most likely to be employed in research and development whereas those from humanities and other fields were more likely to be engaged in teaching activities.

The proportion of graduates whose main future work activities were research and development or teaching was comparable to the doctoral recipients in the United States. On the other hand, 19% of graduates from Canada were planning to carry out professional services compared to less than 10% in the United States.

Employers of doctoral graduates

Graduates who indicated firm plans for employment were asked about the type of employer for whom they would work.

In this section, types of employers were grouped into four groups:

1. Canadian postsecondary educational institution: this group includes universities, medical schools, university-affiliated research institutes and community colleges, CEGEP or technical institutes.
2. Industry (or business) / self-employed.
3. Canadian federal, provincial or municipal government.
4. Other: this includes pre-schools, elementary or secondary schools, educational institutions in other countries, governments of other countries, and not for profit organizations.

Canadian post-secondary educational institutions employed half of all graduates entering the workforce

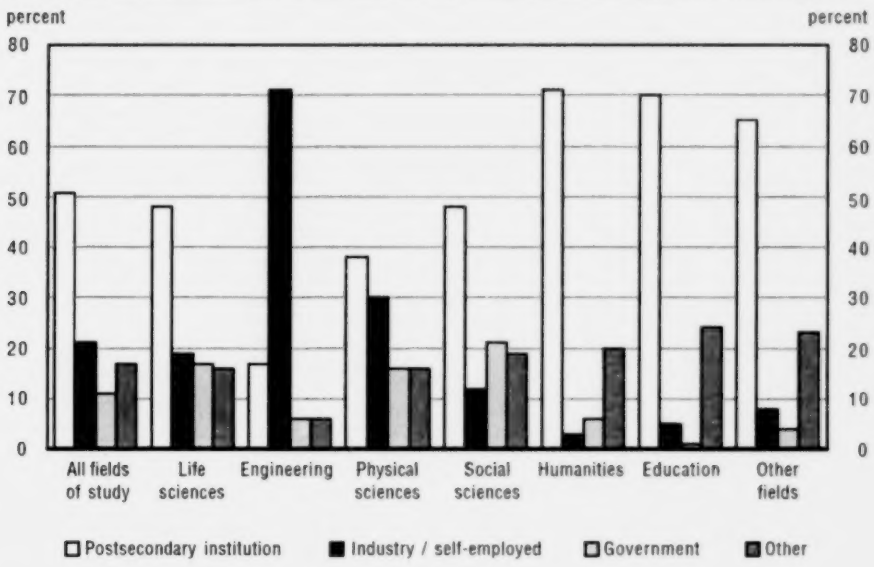
The most common employer reported by graduates with firm plans for employment after graduation was a Canadian postsecondary educational institution (about 50%). In addition, universities (45%) rather than community colleges, CEGEPs or technical institutes will employ the vast majority of these graduates. The second largest group of doctoral recipients intended to work for an industry or be self-employed (21%), followed by the Canadian federal, provincial or municipal governments (11%). Almost 18% of graduates reported an "other" type of employer.

The proportion of graduates planning to work for a Canadian postsecondary educational institution increased by about six percentage points from the previous year. At the same time the proportion who indicated that they would be self-employed or working for an industry decreased by six percentage points.

About seven out of ten graduates from the fields of humanities and education and two-thirds of graduates from the "other" fields of study expected to be employed by a Canadian postsecondary institution in 2006. Engineering graduates were the least likely to work for such an institution, but the most likely to be working for an industry or to be self-employed (70%). Physical sciences graduates expected to work in comparable proportions in an educational institution (39%) and industry or be self-employed (30%). The percentage of graduates planning to work for the federal, provincial or municipal government was the highest among graduates in the social sciences.

Chart 17

Proportion of graduates with firm employment plans for the coming year by type of employer and field of study



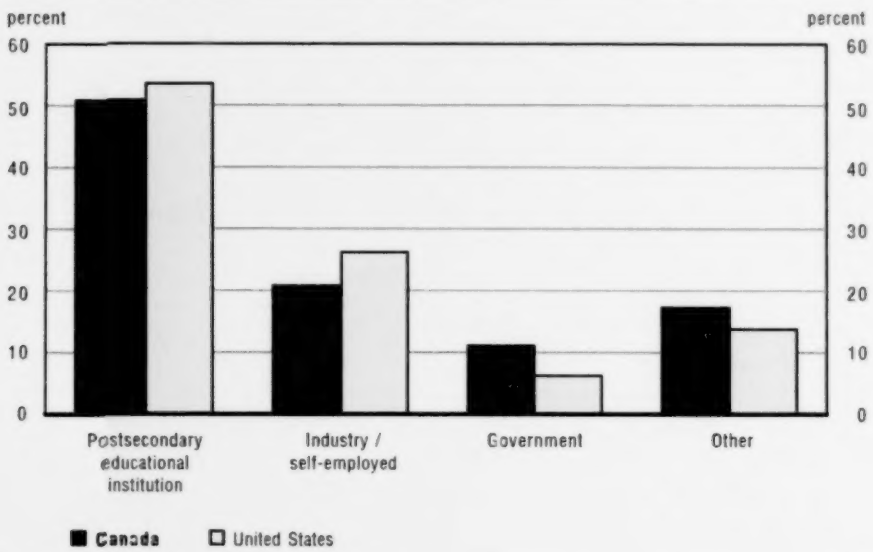
Note: Data in this graph excludes non-research degrees.
Source: Statistics Canada, Survey of Earned Doctorates, 2005/2006

There were fewer Canadian graduates employed by industry compared to the United States

A similar proportion of doctoral recipients expected to work for a postsecondary educational institution in both Canada and the United States. However, fewer Canadian graduates planned to work for an industry or be self-employed, but more (by five percentage points in both cases) would work for one of the three levels of government.

Chart 18

Type of employers for graduates with firm employment plans for the coming year, Canada and United States



Note: Canadian data in this graph excludes non-research degrees.

Sources: Statistics Canada. Survey of Earned Doctorates, 2005/2006 and Hoffer, T.B., M. Hess, V. Welch, Jr., and K. Williams. 2007. *Doctorate Recipients from United States Universities: Summary report 2006.*

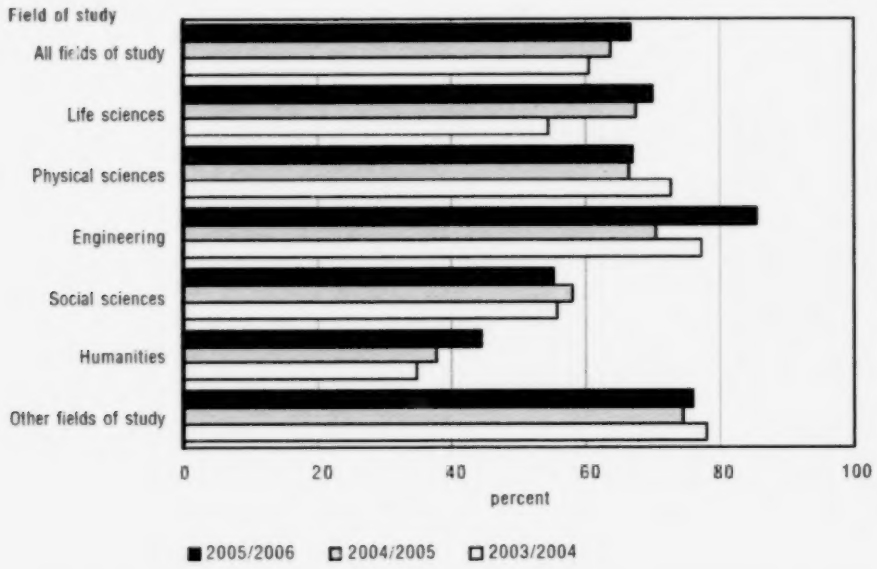
Many doctoral graduates had strong income expectations

Two thirds of the graduates with firm plans for employment expected earnings of $55,000 or over. This was the highest proportion observed over the three years of data; an increase of six percentage points compared to the class of 2003/2004, but comparable to the class of 2004/2005. On the other hand, the number of graduates expecting to earn less than $35,000 remained the same as the two previous years at about 12%[6].

Graduates from engineering (86%) were the most likely to report expected earnings of $55,000 or over, followed by other fields of study (76%) and by life sciences (70%). Although the difference between the fields of study within the class of 2005/2006 was not significant, there was a marked increase in the number of 2005/2006 engineering graduates expecting to earn $55,000 and more compared to the two previous years. The number increased by eight percentage points compared to 2003/2004 (77%) and by fifteen percentage points compared to the class of 2004/2005, which had the lowest proportion (71%). In addition, seven out of ten life sciences doctoral recipients expected to earn $55,000 or more compared to 67% in 2004/2005 and 55% in 2003/2004.

Chart 19

Proportion of graduates with firm plans for employment reporting an annual salary of $55,000 or more



Source: Statistics Canada, Survey of Earned Doctorates, 2005/2006.

Postdoctoral education and further training

The number of graduates pursuing further study or training with a postdoctoral fellowship remained the same for the past three years at around 75%. Graduates from humanities (about 86%) and social sciences (about 84%) were the most likely to take a postdoctoral fellowship while graduates in physical sciences and engineering (about 67%) were the least likely. There were no significant changes among the fields of study between the years, except for social sciences where the proportion of graduates with postdoctoral fellowships increased by slightly more than thirteen percentage points compared to 2004/2005.

More than nine out of ten graduates with firm plans for further study reported that their primary activity after graduation would be research and development, with practically no significant differences among fields of study. However, graduates from other fields of study saw a marked decrease in the proportion of those engaged in research and development compared to prior years. Indeed, the proportion in 2005/2006 was about 80% whereas it was 100% in 2004/2005 and 95% in 2003/2004.

Funding for postdoctoral studies came from a variety of sources

Doctoral graduates pursuing postdoctoral studies receive financial support from many sources: funding agencies, businesses, universities and colleges or private foundations. In 2006, as in previous years, two sources of funding predominated:

49% of graduates reported funding agencies as their main source of funding for their postdoctoral studies and about 23% reported colleges or universities. This predominance was observed for all fields of study.

In contrast with graduates with firm plans for employment, two thirds of the graduates undertaking postdoctoral studies will earn or receive between $35,000 and $55,000 in financial support. As shown in Appendix 2, Table A.2.1 graduates for most fields of study expected to receive this amount. These proportions remained unchanged compared to the previous year[7].

Typically, the vast majority (86%) of graduates intending to undertake postdoctoral studies will be doing so in an educational institution as was the case for the two previous years. This proportion was comparable for all fields of study.

Postgraduate plans of foreign-born students

More than three-quarters (78%) of foreign-born graduates were either landed immigrants in Canada before registering in their program, or had become landed immigrants by the time of their graduation. Slightly more than half (54%) had held a visa when they first registered in their program and 60% of them had become landed immigrants by graduation (Appendix 2, Table A.2.2).

Less than two thirds of foreign-born graduates (63%) had definite and immediate plans for employment or post-doctorate study/research after graduation, which was significantly lower than the 77% of Canadian-born graduates. In addition, a higher percentage (25%) than the Canadian-born doctoral recipients (15%) was still seeking a position. Non-visa graduates who had become landed immigrants three years or more prior to the start of their program were the most likely to have definite plans following graduation (73%) which was comparable to the proportion of Canadian-born graduates. However, those who became landed immigrants the year they began their program or within three years prior to the beginning of their doctoral studies were the least likely (54%) to have firm plans after graduation.

A greater proportion of foreign-born graduates had plans for further training compared to the Canadian born

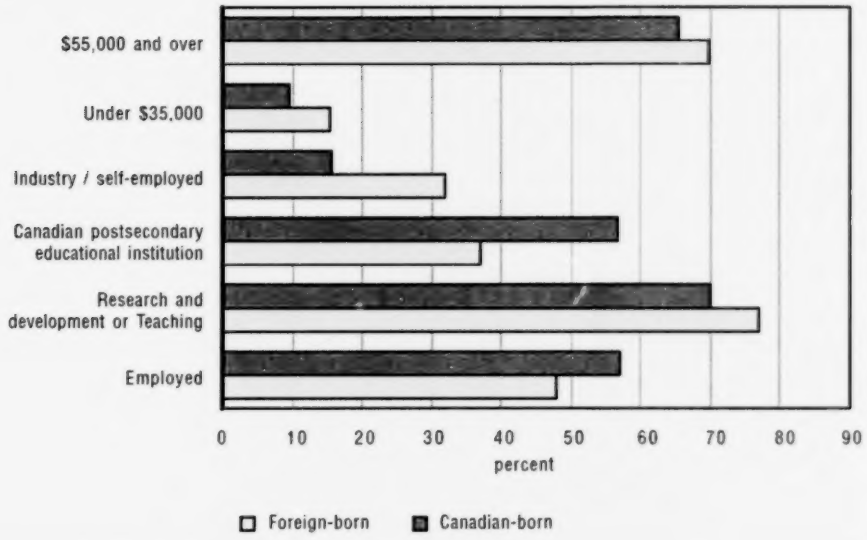
Fewer foreign-born graduates (48%) reported having firm plans for employment after graduation than did their Canadian-born counterparts (57%), but more had firm plans for postdoctoral studies or training (52% versus 43%); a difference of nine percentage points in each case.

Among the foreign-born graduates who had employment plans, more than three quarters were planning to carry out research and development activities or were planning to teach. This was seven percentage points higher than Canadian-born graduates. In addition, there were significant differences in the type of employer reported between the two groups of graduates. More than half of the Canadian-born graduates (57%) would be working for a Canadian postsecondary educational institution whereas slightly more than one-third of foreign-born graduates planned to work for such an institution. On the other hand, twice as many foreign-born graduates (32%) will be self-employed or work for an industry than will be the case for the Canadian-born doctoral recipients (16%).

These results were likely influenced by the fields of study of foreign born students since a greater proportion of them graduated from fields more often employed by industry; such as engineering, life sciences and physical sciences. Seven out of ten foreign-born graduates expected their earnings to be $55,000 or more in the coming year, which was comparable to their Canadian-born colleagues (66%). However, a higher percentage of foreign-born doctoral recipients expected earnings under $35,000 (15% versus 10%). Graduates who held a student visa when they first registered in their program and had not become landed immigrants were the least likely to anticipate earnings of $55,000 or more (47%).

Chart 20

Foreign and Canadian-born graduates with firm plans for employment



Source: Statistics Canada, Survey of Earned Doctorates, 2005/2006.

As seen earlier, slightly more than half of foreign-born graduates (52%) had firm plans for postdoctoral studies or training. Nearly three quarters of them were planning to do so with a postdoctoral fellowship and more than nine out of ten (95%) identified research and development as their primary activity; these proportions were similar for the Canadian-born graduates. There were significant differences in the sources of financial support for the postdoctoral appointment reported by the graduates. More than half (54%) of the Canadian-born doctoral recipients named a funding agency as the main source of financial support versus 43% for foreign-born, but about twice as many foreign-born graduates were funded by a college or university than was the case for the native-born (31% versus 17%). In both cases, about two-thirds of graduates reported that the amount of their financial support would range from $35,000 to $54,999 and the vast majority (around 85%) will pursue their postdoctoral research or study in an academic environment (Appendix 2, Table A.2.3.1 and Table A.2.3.2).

7. The decision to leave Canada upon program completion

The movement of doctoral students out of the country at the completion of their degree represents a significant loss to Canada. Many of the graduates would become important contributors to research and development, and society in general, if they were to stay. Furthermore, a large portion of their doctoral education has been subsidized by the Canadian taxpayer.

In the 2005/2006 academic year, 21% of the graduates indicated that they planned to live outside of Canada upon the completion of their program. Twelve percent indicated that they would be living in the United States and nine percent indicated that they would be living in neither Canada nor the United States upon graduation. The proportion of graduates with plans to live outside of Canada has not changed since the 2003/2004 graduating class. However, there has been a slight increase of two percentage points in the proportion of graduates with plans to live in a country other than Canada or the United states between the 2003/2004 and the 2005/2006 academic years.

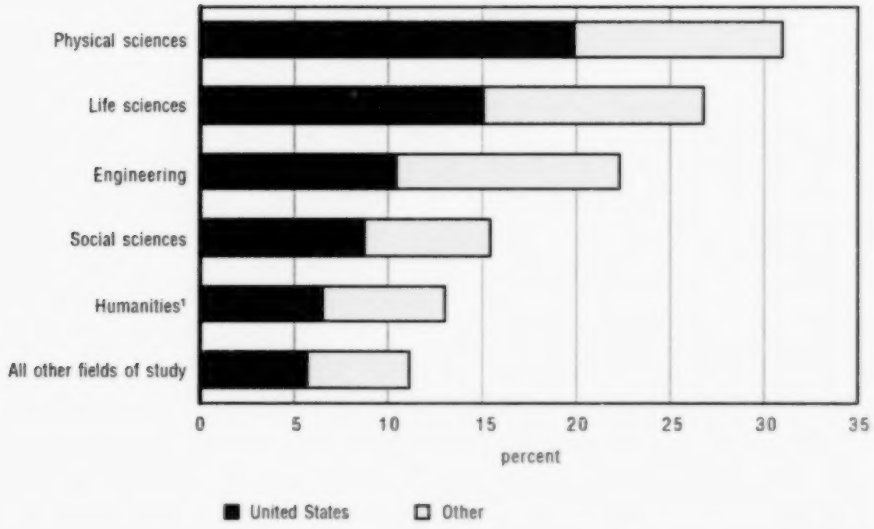
Graduates in the physical sciences and life sciences were the most likely to indicate plans to leave Canada

There was some variation in the proportion intending to live outside Canada depending on the field of study. Graduates of the physical sciences had the largest proportion who intended to live outside of Canada at 30% of graduates. The next largest proportion was for life sciences graduates, where 26% of graduates indicated that they intended to live outside of Canada. This, however, marks a decrease of five percentage-points from the 2003/2004 class, due to a large decrease in the proportion of life sciences graduates intending to live in the United Sates. There was also a decrease of four percentage-points between 2003/2004 and 2005/2006 in the proportion of social science graduates intending to live outside of Canada upon completion.

On the other hand, there was an increase of seven percentage points in the proportion of engineering graduates intending to live outside of Canada, driven largely by an increase in the proportion of graduates with plans to live in a country other than Canada or the United States.

Chart 21

Proportion of graduates intending to live outside of Canada by field of study and intended country of residence



1. The proportion of graduates from the humanities who intend to live in a country other than Canada or the United States should be used with caution.

Source: Statistics Canada, Survey of Earned Doctorates, 2005/2006.

The majority of graduates who intended to leave also had plans to return

Not all graduates with plans to leave intend to stay away indefinitely. In fact, the majority of graduates (55%) who were intending to leave indicated that they were also planning to return to Canada to live or work in the future. This proportion has not changed since 2003/2004. Furthermore, a large proportion of graduates were undecided about their plans to return to Canada (38%), and only 7% indicated that they were not planning to return. Graduates who left for the United States were the most likely to indicate intentions to return to Canada—60% did so compared to 50% of those moving to neither Canada nor the United States.

Graduates returning to Canada have both positive and negative effects on the economy and society. Some may return to spend productive years in the labour force, while others return only in later life. Though SED does not provide further insight into the future movement of doctoral graduates, it does underscore the fact that the movement of doctorate holders in and out of Canada is complex and that Canada is both a recipient and a contributor of doctorate holders to the global market.

Modelling the leave decision

There are many factors that can be examined when considering what influences the decision that graduates make to leave upon graduation—marital status, age, gender

and landed immigrant status, to name a few. In order to examine the impact that each of these variables had on the leave decision, independently of each other, a logistic regression analysis was preformed.

Logistic regression is useful when the dependent variable takes a value of either zero or one—in this case whether a graduate has plans to live outside of Canada or not. The coefficients on the right-hand-side can be interpreted as the effect the independent variables have on the probability of leaving Canada. The leave decision has been modeled as follows:

Leave = *f* (immigration status, gender, marital status, dependent children, field of study, type of future plans, age)

The proportions of leavers and non-leavers for each independent variable are reported in Appendix 2, Table A.2.4, along with the estimates from the logistic regression. The following discussion will present an overview of the variables that impact the decision to leave.

Graduates' types of plans influenced their decision to leave

One of the more influential factors that affected graduates' decision to live in a country other than Canada was the graduate's plans for employment or additional studies. One third of graduates who had firm plans for further training or studies also planned on living outside of Canada. In contrast, only 13% of those with firm plans for employment expected to live outside of Canada upon graduation. Furthermore, results from the logistic regression indicate that while those who had firm plans for employment were no less likely to leave Canada than those with other or no plans, those who intended on further studies had more than twice the odds of leaving Canada as those with no firm plans (odds ratio of 2:1). Almost all of these graduates were leaving to complete a postdoctoral fellowship.

A mitigating factor was that a greater proportion of the graduates who were leaving to pursue additional education had intentions to return to Canada. Only one third of graduates (35%) who left Canada with firm plans for employment indicated that they had plans to return at some point. In contrast, over two thirds (69%) of graduates who left Canada with firm plans for further studies indicated that they planned to return.

Age, gender, marital status and dependents of graduates with intentions to leave

The most likely demographic to decide to leave Canada was young single men. More men decided to leave than did women (23% compared to 19%); a greater proportion of single graduates had plans to leave than did the married or common-law graduates (27% compared to 19%); and one quarter of graduates who did not have dependents intended to leave while only 15% of those with dependents had such intentions. Finally, the average age of leavers was 33 years, while the average age of non-leavers was 36 years.

When these variables were included in the logistic regression only two remained significant at the 5% level. Age was negatively associated with leaving

Canada, as was having dependents. Those with dependents were about 40% less likely to leave Canada upon completion. While the demographic differences stated above still held true, analysis suggests that these two variables matter more in the decision to leave.

Graduates' field of study impacted the decision to leave Canada

As shown in Appendix 1, Table A.1.19.2 and Table A.1.19.4, life science and physical science graduates top the list of those with plans to leave. Regression results confirmed this finding, as both fields of study were significantly correlated with the decision to leave. Compared to graduates in the humanities, life science graduates and physical science graduates have twice the odds of leaving Canada upon completion (odds ratio of 2.0 and 2.2). Graduates of the humanities were the least likely to have plans to leave Canada. No other fields of study had a significant effect on the decision to leave.

One third of visa and foreign students intended to leave Canada upon completion of their program

The final set of characteristics examined in this decision was the respondents' immigration status. This variable corresponds to the flow chart (figure 1) found earlier outlining pathways to doctoral studies in Canada. The five groups examined in this analysis were:

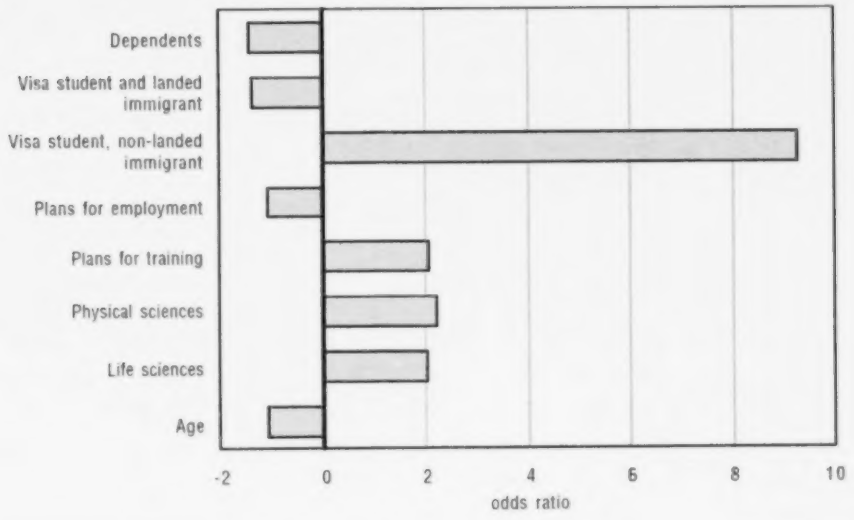
- Canadian by birth[8]
- visa students who have become landed immigrants
- visa students who have not become landed immigrants
- non-visa students who are recent landed immigrants (within 3 years of the start of their doctoral program), and
- non-visa students who became a landed immigrant at least 4 years prior to the beginning of their doctoral program.

The group with the smallest proportion of graduates with plans to leave Canada were graduates who began their program as a visa student and who since became a landed immigrant (13%), though it was not significantly different from the Canadian by birth at 17%. Furthermore, these graduates were negatively correlated with the decision to leave in the logistic regression, having 35% lower odds of leaving than the Canadian by birth.

The group with the greatest proportion of leavers was the visa students who had not become landed immigrants within the course of their studies. Six in ten of these graduates had plans to leave Canada upon graduation, and compared to the Canadian by birth they had 9 times the odds of having plans to leave. Combining the two different groups reveals that 31% of all graduates who began their program as a visa or foreign student had intentions to leave Canada.

Landed immigrants in Canada, both those who arrived shortly before beginning their doctoral program and those who arrived earlier, were no different from the Canadian born in their tendency to leave Canada upon graduation.

Chart 22
Correlates of the decision to leave (odds ratios)



Source: Statistics Canada, Survey of Earned Doctorates, 2005/2006.

8. Conclusions

The Survey of Earned Doctorates provided a detailed portrait of approximately 4100 students who graduated with a doctorate degree from a Canadian institution in the 2005/2006 academic year. Many of the graduates were poised to make significant contributions to science and technology research, as the majority of graduates completed their degree in a science or engineering field of study. In fact, compared to the United States, Canada had a larger proportion of graduates in a science or engineering field of study, the most common being biological sciences, from which one in five doctoral students graduated.

Canadian doctoral graduates in 2005/2006 were just as likely to be female as they were male (once foreign or visa students were excluded from the analysis). Despite large differences across fields of study, there was significant movement towards a more even divide, with several male dominated fields of study increasing in their proportion of women, and one female dominated field of study increasing in its proportion of men. This movement towards greater equality is encouraging given the historical under-representation of women at the doctoral level, and the under-representation of men at the bachelors and masters levels.

Foreign-born graduates were a major component of Canada's stock of doctorate holders, as over one in five graduates from Canadian institutions were born outside of Canada. Of these, three quarters were either a foreign or visa student, or were a recent landed immigrant to Canada. Canada's dependence on foreign students was greatest in engineering, as nearly half (47%) of all graduates in that field began their program as a foreign or visa student. However, in many cases foreign or visa students choose to stay in Canada upon completion of their program. For instance, over half of the students who began their program as a visa or foreign student had become a landed immigrant by the completion of their program.

Graduates who were pursuing a postdoctoral fellowship were more likely to have plans to live outside of Canada, which raises questions about the opportunities for postdoctoral positions within Canadian institutions. On the other hand, the majority of graduates who had plans to leave Canada to pursue a postdoctoral fellowship also indicated that they were planning to return to Canada later in life. Due to the large proportion of leaving graduates who were pursuing postdoctoral education this meant that over half of all the leavers intended to return to Canada.

Seven out of ten graduates had already made firm plans by the time of graduation and over 60% of those with plans for employment expected to earn over $55,000. While this suggests strong expectations among graduates as a whole, there were some areas of weakness. Visa students and recent immigrants showed lower income expectations and less likelihood to have firm plans than did other graduates. Among fields of study, graduates in the humanities had the lowest proportion of graduates with firm plans and with income expectations over $55,000.

While the general picture of doctorate education presented by SED was very positive, two considerations are noteworthy. The first is the number of doctoral graduates in Canada, as there was only small growth in the number of doctoral graduates from Canadian institutions over the previous eight years. Furthermore, Canada has a smaller proportion of doctorate holders in the population relative to the United States, so there is potential for growth in the number of graduates. This potential may be met by the immigration of international doctoral graduates, and by recent small increases in the enrolment of students into doctoral programs in Canada. A second consideration is the integration of doctoral graduates into the Canadian labour market. However, strong opportunities for further education and employment will enable Canada to retain both foreign and Canadian-born graduates, and to take advantage of their considerable investments in human capital.

References

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Endnotes

1. Statistics Canada. Post Secondary Student Information System (PSIS), 1998-2005.
2. American institutions granted 43,385 doctoral degrees in 2004/2005 and 42,123 in 2003/2004. Data obtained from: *Doctorate Recipients from United States Universities: Summary Report 2006.*
3. The authors acknowledge that the population over the age of 15 is not the most appropriate range for which to examine the number of doctorate degree holders given the rarity of 15 year old doctoral graduates. However, this age range does provide figures for which comparisons to the United States may be easily made.
4. Statistics Canada. Post Secondary Information System (PSIS), 1998-2005. Data is for the calendar year. The proportion of women at the doctoral level for 2005 was 43%, slightly lower than results for SED for the 2004/2005 academic year.
5. Visa or foreign students responded affirmatively to the question "When you first registered in your doctoral program, were you a visa or foreign student in Canada?." A landed immigrant refers to a graduate who has been granted the right to live in Canada permanently by immigration authorities. The graduates were asked if they had ever been a landed immigrant and the year that they became a landed immigrant. Some landed immigrants may also be Canadian citizens by naturalization.
6. The income categories have not been adjusted for inflation.
7. Information on the amount of financial support for postdoctoral studies was not available for 2003/2004.
8. Canadian by birth refers to those born in Canada and also those born outside of Canada but who are Canadian citizens by birth.

Appendix 1 – Standard tables

Table A.1.1
Characteristics of doctoral graduates, 2005/2006

	Proportion	Confidence limits (95%)		Coefficient of variation
	percent	lower	upper	percent
Distribution of graduates by fields of study				
Agricultural sciences	2.3	1.8	2.7	10.13
Biological sciences	20.3	19.0	21.5	3.17
Health sciences	6.5	5.7	7.3	6.22
Engineering	14.8	13.7	15.9	3.89
Computer and information sciences	2.6	2.1	3.1	10.55
Mathematics	2.3	1.9	2.8	9.99
Astronomy	0.8	0.6	1.0	15.61
Atmospheric sciences and meteorology	0.5	0.3	0.7	20.71 [E]
Chemistry	4.9	4.2	5.6	7.13
Geological and related sciences	1.6	1.2	2.1	14.02
Physics	2.2	1.8	2.7	10.57
Other physical sciences	1.3	0.9	1.7	15.59
Psychology	7.9	7.2	8.7	4.77
Social sciences	8.0	7.2	8.8	5.22
Humanities	10.1	9.3	11.0	4.33
Education	7.7	6.9	8.5	5.55
Professional fields / Other	6.1	5.3	6.8	6.32
Gender				
Men	55.9	55.1	56.7	0.71
Women	44.1	43.3	44.9	0.90
Marital status				
Never legally married (single, not common-law)	26.7	25.3	28.1	2.65
Married or common-law	69.1	67.6	70.5	1.07
Separated, but still legally married	1.2	0.8	1.5	15.61
Divorced	2.7	2.3	3.2	9.02
Widowed	0.3	0.1	0.5	30.10 [E]
Distribution of graduates who have dependents[1]				
Have no dependent	64.4	62.8	65.9	1.22
Have dependents	35.6	34.1	37.2	2.21
Distribution of graduates who were foreign students				
Foreign or visa student	22.9	21.7	24.1	2.70
Canadian student	77.1	75.9	78.3	0.80
Distribution of graduates by age groups				
Less than 22	x	x	x	x
22 to 24	x	x	x	x
25 to 29	23.1	21.7	24.4	2.97
30 to 39	53.2	51.6	54.7	1.51
40 and over	23.7	22.4	25.1	2.91

x suppressed to meet the confidentiality requirements of the *Statistics Act*

[E] use with caution

1. Excludes spouse / partner.

Source: Survey of Earned Doctorates, Statistics Canada, 2005/2006.

Table A.1.2.1

Distribution of doctoral graduates by detailed field of study and gender, 2005/2006

	Proportion	Confidence limits (95%)		Coefficient of variation
	percent	lower	upper	percent
Agricultural sciences				
Male	50.7	40.8	60.7	9.99
Female	49.3	39.3	59.2	10.28
Biological sciences				
Male	54.4	51.2	57.6	3.03
Female	45.6	42.4	48.8	3.61
Health sciences				
Male	39.8	33.7	45.9	7.84
Female	60.2	54.1	66.3	5.18
Engineering				
Male	85.7	82.7	88.7	1.79
Female	14.3	11.3	17.3	10.75
Computer and information sciences, and mathematics				
Male	81.6	76.7	86.6	3.10
Female	18.4	13.4	23.3	13.79
Physical sciences				
Male	68.0	63.9	72.0	3.04
Female	32.0	28.0	36.1	6.46
Psychology				
Male	29.8	25.1	34.5	7.99
Female	70.2	65.5	74.9	3.39
Social sciences				
Male	44.1	39.0	49.2	5.90
Female	55.9	50.8	61.0	4.65
Humanities				
Male	48.2	43.9	52.5	4.55
Female	51.8	47.5	56.1	4.24
Education				
Male	38.5	33.0	44.0	7.27
Female	61.5	56.0	67.0	4.56
Professional fields / Other fields of study				
Male	49.0	42.8	55.3	6.51
Female	51.0	44.7	57.2	6.26
All fields of study				
Male	55.9	55.1	56.7	0.71
Female	44.1	43.3	44.9	0.90

Source: Survey of Earned Doctorates, Statistics Canada, 2005/2006.

Table A.1.2.2

Distribution of doctoral graduates by detailed field of study and gender excluding foreign born and visa students, 2005/2006

	Proportion	Confidence limits (95%)		Coefficient of variation
	percent	lower	upper	percent
Agricultural sciences				
Male	53.4	39.5	67.3	13.27
Female	46.6	32.7	60.5	15.19
Biological sciences				
Male	54.7	51.3	58.0	3.16
Female	45.3	42.0	48.7	3.81
Health sciences				
Male	34.1	28.0	40.1	9.10
Female	65.9	59.9	72.0	4.70
Engineering				
Male	80.9	76.4	85.5	2.88
Female	19.1	14.5	23.6	12.22
Computer and information sciences, and mathematics				
Male	80.7	74.2	87.2	4.09
Female	19.3	12.8	25.8	17.12[E]
Physical sciences				
Male	65.3	60.6	70.1	3.70
Female	34.7	29.9	39.4	6.96
Psychology				
Male	28.4	23.7	33.1	8.48
Female	71.6	66.9	76.3	3.36
Social sciences				
Male	40.8	34.7	46.9	7.58
Female	59.2	53.1	65.3	5.23
Humanities				
Male	49.2	44.5	54.0	4.90
Female	50.8	46.0	55.5	4.75
Education				
Male	35.1	29.1	41.1	8.69
Female	64.9	58.9	70.9	4.70
Professional fields / Other				
Male	54.8	47.2	62.4	7.04
Female	45.2	37.6	52.8	8.53
All fields of study				
Male	52.3	51.4	53.2	0.86
Female	47.7	46.8	48.6	0.94

[E] use with caution

Source: Survey of Earned Doctorates, Statistics Canada, 2005/2006.

Table A.1.3.1

Average age of doctoral graduates at graduation by field of study, 2005/2006

	Average age at graduation	Confidence limits (95%)	
	in years	lower	upper
Agricultural sciences	36	34	37
Biological sciences	32	31	32
Health sciences	38	37	39
Engineering	34	34	35
Computer and information sciences, and mathematics	34	33	34
Chemistry	31	30	31
Other physical sciences	33	32	33
Psychology	33	32	34
Social sciences	38	37	39
Humanities	37	36	38
Education	44	43	46
Professional fields / Other	41	40	42
All fields of study	**35**	**35**	**36**

Table A.1.3.2

Average time to completion by field of study, 2005/2006

	Average time to completion	Confidence limits (95%)	
	in months	lower	upper
Agricultural sciences	62	58	66
Biological sciences	67	66	68
Health sciences	62	60	65
Engineering	57	56	59
Computer and information sciences, and mathematics	65	62	68
Chemistry	62	59	64
Other physical sciences	63	61	65
Psychology	74	71	76
Social sciences	82	79	85
Humanities	77	75	80
Education	77	74	81
Professional fields / Other	78	73	82
All fields of study	**69**	**68**	**70**

Source: Survey of Earned Doctorates, Statistics Canada, 2005/2006.

Table A.1.4

Canadian and foreign or visa doctoral students by field of study, 2005/2006

	Proportion	Confidence limits (95%)		Coefficient of variation
	percent	lower	upper	percent
Life sciences				
Foreign or visa student	15.1	12.9	17.2	7.27
Canadian student	84.9	82.8	87.1	1.29
Engineering				
Foreign or visa student	46.8	42.4	51.1	4.72
Canadian student	53.2	48.9	57.6	4.15
Physical sciences				
Foreign or visa student	27.6	23.9	31.2	6.80
Canadian student	72.4	68.8	76.1	2.59
Social sciences				
Foreign or visa student	18.0	15.3	20.8	7.81
Canadian student	82.0	79.2	84.7	1.72
Humanities				
Foreign or visa student	16.7	13.4	20.0	9.98
Canadian student	83.3	80.0	86.6	2.00
Other fields of study				
Foreign or visa student	18.7	15.4	22.0	8.98
Canadian student	81.3	78.0	84.6	2.06
All fields of study				
Foreign or visa student	**22.9**	**21.7**	**24.1**	**2.70**
Canadian student	**77.1**	**75.9**	**78.3**	**0.80**

Source: Survey of Earned Doctorates, Statistics Canada, 2005/2006.

Table A.1.5.1
Source and number of financial support during graduate school, 2005/2006

Source of financial support	Proportion	Confidence limits (95%)		Coefficient of variation
	percent	lower	upper	percent
Fellowship or scholarship from:				
National Sciences and Engineering Research Council	19.6	18.3	20.8	3.27
Social Sciences and Humanities Research Council	9.9	9.0	10.8	4.43
Medical Research Council / Canadian Institutes of Health Research	8.7	7.8	9.5	5.03
Your institution	65.3	63.8	66.8	1.17
Provincial	35.6	34.1	37.1	2.11
Another	22.8	21.5	24.1	2.95
Unknown	1.0	0.7	1.3	16.14
Teaching assistantship from:				
National Sciences and Engineering Research Council	0.4	0.2	0.7	28.92 [E]
Social Sciences and Humanities Research Council	0.5	0.2	0.8	26.90 [E]
Medical Research Council / Canadian Institutes of Health Research	F	F	F	F
Your institution	64.5	63.1	65.9	1.13
Provincial	0.3	0.2	0.5	25.97 [E]
Another	0.8	0.5	1.2	19.98 [E]
Unknown	0.4	0.2	0.6	28.36 [E]
Research assistantship from:				
National Sciences and Engineering Research Council	11.2	10.2	12.2	4.53
Social Sciences and Humanities Research Council	6.0	5.3	6.8	6.31
Medical Research Council / Canadian Institutes of Health Research	3.7	3.1	4.3	8.15
Your institution	38.3	36.8	39.8	1.99
Provincial	3.2	2.7	3.8	8.63
Another	7.4	6.6	8.2	5.76
Unknown	1.1	0.9	1.4	11.93
Loans (from any source)	26.0	24.7	27.4	2.62
Foreign (non-Canadian) support	5.7	4.9	6.4	6.80
Personal savings	40.6	39.0	42.1	1.95
Personal earnings during graduate school (other than sources listed above)	34.0	32.5	35.4	2.22
Family earnings or savings	32.9	31.4	34.4	2.27
Employer reimbursement or assistance	5.9	5.1	6.7	6.72
Other source	4.2	3.5	4.8	8.40

[E] use with caution

F too unreliable to be published

Source: Survey of Earned Doctorates, Statistics Canada, 2005/2006.

Table A.1.5.2
Average number of financial sources reported by doctoral graduates, 2005/2006

	Average number of sources	Confidence limits (95%)		Coefficient of variation
	percent	lower	upper	percent
Life sciences	4.3	4.2	4.4	1.28
Engineering	4.2	4.1	4.4	1.78
Physical sciences	4.6	4.5	4.7	1.51
Social sciences	5.2	5.0	5.3	1.42
Humanities	4.9	4.7	5.1	1.89
Others	4.1	3.9	4.3	2.38
All fields of study	**4.5**	**4.4**	**4.6**	**0.67**

Source: Survey of Earned Doctorates, Statistics Canada, 2005/2006.

Table A.1.6

Distribution of graduates reporting source of financial support during graduate school, 2005/2006

	Proportion	Confidence limits (95%)		Coefficient of variation
	percent	lower	upper	percent
Primary source of financial support				
Fellowship, Scholarship	53.0	51.5	54.6	1.47
Research or teaching assistantship	18.6	17.4	19.8	3.33
Loans from any source	2.8	2.3	3.3	8.89
Personal savings or spouse's, partner's or family earnings or savings	8.5	7.6	9.4	5.35
Personal earnings during graduate school (other than those listed above)	8.2	7.4	9.1	5.36
Employer reimbursement / assistance	2.0	1.5	2.5	12.29
Foreign support / Other	2.4	1.9	2.9	10.97
Financial source, not stated	4.5	3.8	5.1	7.36
Secondary source of financial support				
Fellowship, Scholarship	31.3	29.9	32.8	2.37
Research or teaching assistantship	30.1	28.7	31.6	2.41
Loans from any source	4.7	4.1	5.4	7.12
Personal savings or spouse's, partner's or family earnings or savings	12.5	11.5	13.6	4.31
Personal earnings during graduate school (other than those listed above)	7.1	6.3	7.9	5.83
Employer reimbursement / assistance	1.4	1.0	1.8	15.42
Foreign support / Other	1.7	1.3	2.1	12.71
No secondary source of financial support	6.7	5.9	7.5	6.14
Financial source, not stated	4.4	3.7	5.0	7.45

Source: Survey of Earned Doctorates, Statistics Canada, 2005/2006.

Table A.1.7

Primary sources of financial support by gender, 2005/2006

	Proportion	Confidence limits (95%)		Coefficient of variation
	percent	lower	upper	percent
Male				
Fellowship, Scholarship	51.9	49.8	54.0	2.07
Research or teaching assistantship	22.1	20.3	23.9	4.19
Loans from any source	2.2	1.6	2.9	13.95
Personal savings or spouse's, partner's or family earnings or savings	6.5	5.3	7.6	8.96
Personal earnings during graduate school (other than those listed above)	8.1	6.8	9.3	7.79
Employer reimbursement / assistance	2.3	1.6	3.0	14.90
Foreign support / Other	2.9	2.1	3.7	14.44
Financial source, not stated	4.0	3.2	4.8	10.01
Female				
Fellowship, Scholarship	54.5	52.2	56.7	2.10
Research or teaching assistantship	14.2	12.6	15.8	5.78
Loans from any source	3.5	2.7	4.3	11.49
Personal savings or spouse's, partner's or family earnings or savings	11.0	9.6	12.4	6.55
Personal earnings during graduate school (other than those listed above)	8.4	7.3	9.6	7.15
Employer reimbursement / assistance	1.6	0.9	2.3	21.57 [E]
Foreign support / Other	1.7	1.2	2.3	15.36
Financial source, not stated	5.0	4.0	6.1	10.73

[E] use with caution

Source: Survey of Earned Doctorates, Statistics Canada, 2005/2006.

Table A.1.8

Combinations of source of financial support during graduate school, 2005/2006

Primary source of funding combined with a secondary source of funding	Proportion	Confidence limits (95%)		Coefficient of variation
	percent	lower	upper	percent
Fellowship, Scholarship				
Fellowship, scholarship	20.4	19.2	21.7	3.17
Research or teaching assistantship	18.3	17.1	19.4	3.22
Personal savings or spouse's, partner's or family earnings or savings	5.7	4.9	6.5	6.89
Personal earnings during graduate school (other than those listed above)	4.0	3.4	4.7	7.97
Other sources	3.6	2.9	4.2	8.69
Research or teaching assistantship				
Fellowship, scholarship	5.6	4.9	6.4	6.70
Research or teaching assistantship	7.6	6.7	8.5	5.96
Personal savings or spouse's, partner's or family earnings or savings	1.9	1.5	2.4	12.06
Personal earnings during graduate school (other than those listed above)	1.1	0.8	1.5	16.25
Other sources	2.5	1.9	3.0	11.14
Personal savings or spouse's, partner's or family earnings or savings				
Fellowship, scholarship	2.5	2.0	3.0	10.19
Research or teaching assistantship	2.4	1.9	2.9	10.71
Personal savings or spouse's, partner's or family earnings or savings	1.1	0.8	1.5	15.28
Personal earnings during graduate school (other than those listed above)	1.4	1.0	1.8	14.11
Other sources	0.8	0.5	1.1	17.68 E
Personal earnings during graduate school (other than those listed above)				
Fellowship, scholarship	2.6	2.0	3.1	10.51
Research or teaching assistantship	1.6	1.2	2.0	13.38
Personal savings or spouse's, partner's or family earnings or savings	2.5	2.0	3.0	10.01
Personal earnings during graduate school (other than those listed above)	x	x	x	x
Other sources	1.1	0.8	1.5	15.81
Other sources				
Fellowship, scholarship	1.7	1.2	2.1	13.46
Research or teaching assistantship	1.7	1.3	2.1	12.66
Personal savings or spouse's, partner's or family earnings or savings	1.9	1.4	2.3	12.54
Personal earnings during graduate school (other than those listed above)	0.9	0.6	1.1	16.41
Other sources	x	x	x	x

x suppressed to meet the confidentiality requirements of the *Statistics Act*

E use with caution

Source: Survey of Earned Doctorates, Statistics Canada, 2005/2006.

Table A.1.9

Debt for graduate and undergraduate programs, 2005/2006

	Proportion	Confidence limits (95%)		Coefficient of variation
	percent	lower	upper	percent
Debt from graduate studies				
No debt	59.9	58.3	61.4	1.30
$10,000 or less	14.6	13.5	15.8	3.90
$10,001 to $20,000	11.1	10.1	12.1	4.50
$20,001 or more	14.4	13.3	15.5	4.00
Debt from undergraduate studies				
No debt	71.7	70.3	73.1	1.00
$10,000 or less	9.9	8.9	10.9	5.00
$10,001 to $20,000	9.4	8.5	10.3	4.90
$20,001 or more	9.0	8.1	9.9	5.20
No debt from graduate studies or undergraduate studies	49.0	47.5	50.6	1.70
Debt from undergraduate studies only	11.0	10.0	11.9	4.60
of these, proportion with debt of:				
$10,000 or less	38.3	33.7	43.0	6.20
$10,001 to $20,000	34.1	29.6	38.6	6.70
$20,001 or more	27.6	23.4	31.8	7.70
Debt from graduate studies only	22.4	21.1	23.7	3.00
of these, proportion with debt of:				
$10,000 or less	36.6	33.5	39.8	4.40
$10,001 to $20,000	28.7	25.7	31.7	5.30
$20,001 or more	34.7	31.5	37.8	4.70
Debt from undergraduate and graduate studies[1]	17.6	16.4	18.8	3.50
of these, amount of debt:				
less than $20,000	14.3	11.5	17.1	10.10
$20,000 or more	67.6	64.0	71.2	2.70
uncertain but between $10,000 and $30,000	18.1	15.2	21.0	8.10

1. Exact totals of the graduate and undergraduate debt cannot be calculated because the debt totals were reported as ranges.

Source: Survey of Earned Doctorates, Statistics Canada, 2005/2006.

Table A.1.10
Graduate debt by field of study, 2005/2006

	Proportion	Confidence limits (95%)		Coefficient of variation
	percent	lower	upper	percent
Life sciences				
No debt	60.5	57.6	63.3	2.44
$10,000 or less	16.2	14.0	18.4	6.84
$10,001 to $20,000	12.6	10.6	14.6	8.11
$20,001 or more	10.7	9.0	12.5	8.13
Engineering				
No debt	66.2	61.9	70.5	3.29
$10,000 or less	10.9	8.2	13.6	12.52
$10,001 to $20,000	9.7	6.9	12.4	14.64
$20,001 or more	13.2	10.0	16.4	12.33
Physical sciences				
No debt	68.6	64.8	72.5	2.83
$10,000 or less	14.9	12.0	17.8	10.00
$10,001 to $20,000	6.8	4.9	8.6	13.76
$20,001 or more	9.7	7.0	12.3	14.10
Social sciences				
No debt	50.2	46.5	53.9	3.76
$10,000 or less	19.3	16.3	22.3	7.97
$10,001 to $20,000	11.2	8.9	13.4	10.13
$20,001 or more	19.4	16.5	22.3	7.63
Humanities				
No debt	51.8	47.2	56.4	4.52
$10,000 or less	13.4	10.6	16.2	10.76
$10,001 to $20,000	14.4	11.3	17.5	11.02
$20,001 or more	20.4	16.6	24.1	9.42
Other fields of study				
No debt	58.8	54.6	63.0	3.64
$10,000 or less	10.5	7.9	13.0	12.49
$10,001 to $20,000	11.9	9.2	14.6	11.52
$20,001 or more	18.8	15.5	22.2	9.07
All fields of study				
No debt	59.9	58.3	61.4	1.32
$10,000 or less	14.6	13.5	15.8	3.89
$10,001 to $20,000	11.1	10.1	12.1	4.51
$20,001 or more	14.4	13.3	15.5	3.97

Source: Survey of Earned Doctorates, Statistics Canada, 2005/2006.

Table A.1.11

Status of postgraduate plans of doctoral graduates by field of study, 2005/2006

	Proportion	Confidence limits (95%)		Coefficient of variation
	percent	lower	upper	percent
Life sciences				
Returning to, or continuing in, same employment / position as prior to PhD completion	13.0	10.9	15.1	8.07
Signed contract or made definite commitment for other work or study	62.2	59.3	65.0	2.35
Negotiating with one of more organizations	8.2	6.6	9.8	9.99
Seeking position, but have no specific prospects	14.5	12.5	16.6	7.20
No plan to work or study, or other	2.1	1.3	3.0	20.79 E
Engineering				
Returning to, or continuing in, same employment / position as prior to PhD completion	16.1	13.0	19.3	10.00
Signed contract or made definite commitment for other work or study	45.5	41.1	49.9	4.95
Negotiating with one of more organizations	10.3	7.6	13.1	13.49
Seeking position, but have no specific prospects	26.0	22.0	30.1	7.93
No plan to work or study, or other	F	F	F	F
Physical sciences				
Returning to, or continuing in, same employment / position as prior to PhD completion	12.0	9.2	14.7	11.66
Signed contract or made definite commitment for other work or study	63.0	59.0	66.9	3.19
Negotiating with one of more organizations	6.2	4.1	8.4	17.46 E
Seeking position, but have no specific prospects	17.8	14.7	20.9	8.89
No plan to work or study, or other	x	x	x	x
Social sciences				
Returning to, or continuing in, same employment / position as prior to PhD completion	23.6	20.5	26.8	6.89
Signed contract or made definite commitment for other work or study	55.0	51.3	58.7	3.45
Negotiating with one of more organizations	5.2	3.5	6.9	16.90 E
Seeking position, but have no specific prospects	15.1	12.4	17.9	9.23
No plan to work or study, or other	x	x	x	x
Humanities				
Returning to, or continuing in, same employment / position as prior to PhD completion	23.8	19.9	27.8	8.46
Signed contract or made definite commitment for other work or study	32.8	28.5	37.2	6.77
Negotiating with one of more organizations	6.3	4.3	8.3	16.23
Seeking position, but have no specific prospects	33.6	29.3	37.9	6.57
No plan to work or study, or other	3.5	1.9	5.1	23.94 E
Other fields of study				
Returning to, or continuing in, same employment / position as prior to PhD completion	37.1	33.0	41.2	5.68
Signed contract or made definite commitment for other work or study	38.1	33.9	42.3	5.62
Negotiating with one of more organizations	5.3	3.2	7.3	20.09 E
Seeking position, but have no specific prospects	15.8	12.9	18.7	9.37
No plan to work or study, or other	3.7	2.0	5.5	24.34 E
All fields of study				
Returning to, or continuing in, same employment / position as prior to PhD completion	19.4	18.1	20.7	3.31
Signed contract or made definite commitment for other work or study	52.4	50.8	54.0	1.54
Negotiating with one of more organizations	7.1	6.3	7.9	5.98
Seeking position, but have no specific prospects	19.0	17.7	20.2	3.34
No plan to work or study, or other	2.1	1.7	2.6	11.43

x suppressed to meet the confidentiality requirements of the *Statistics Act*

E use with caution

F too unreliable to be published

Source: Survey of Earned Doctorates, Statistics Canada, 2005/2006.

Table A.1.12

Primary activity for doctoral graduates with firm employment for the coming year, 2005/2006

	Proportion	Confidence limits (95%)		Coefficient of variation
	percent	lower	upper	percent
Life sciences				
Research and development	51.9	45.5	58.3	6.30
Teaching	22.2	16.5	27.9	13.03
Management, administration, or other	11.9	7.9	15.9	17.01 E
Professional services	14.0	9.7	18.3	15.69
Engineering				
Research and development	53.9	46.6	61.2	6.88
Teaching	10.0	5.1	14.9	24.82 E
Management, administration, or other	7.0	3.8	10.2	23.19 E
Professional services	29.1	22.5	35.7	11.55
Physical sciences				
Research and development	46.8	38.7	55.0	8.89
Teaching	33.7	25.8	41.6	11.98
Management, administration, or other	x	x	x	x
Professional services	17.3	10.3	24.2	20.62 E
Social sciences				
Research and development	24.6	20.3	28.9	8.97
Teaching	33.4	28.4	38.3	7.54
Management, administration, or other	8.0	5.0	11.1	19.34 E
Professional services	34.0	29.3	38.8	7.12
Humanities				
Research and development	19.8	14.1	25.5	14.71
Teaching	64.5	57.8	71.3	5.31
Management, administration, or other	8.2	4.3	12.0	23.98 E
Professional services	7.5	4.1	10.8	22.66 E
Other fields of study				
Research and development	25.3	20.9	29.7	8.84
Teaching	51.9	46.8	57.1	5.08
Management, administration, or other	13.3	9.5	17.1	14.45
Professional services	9.4	6.1	12.7	17.79 E
All fields of study				
Research and development	35.3	32.9	37.8	3.51
Teaching	36.6	34.1	39.0	3.42
Management, administration, or other	9.3	7.8	10.8	8.33
Professional services	18.8	16.8	20.8	5.40

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E use with caution

Source: Survey of Earned Doctorates, Statistics Canada, 2005/2006.

Table A.1.13

Employment by industry of doctoral graduates with firm employment for the coming year, 2005/2006

	Proportion	Confidence limits (95%)		Coefficient of variation
	percent	lower	upper	percent
Life sciences				
Goods producing industries	x	x	x	x
Professional, scientific and technical services	18.1	12.9	23.3	14.59
Educational services	43.3	36.7	49.9	7.76
Health care and social assistance	15.3	10.8	19.8	14.85
All other services industries	6.0	2.9	9.1	26.27 E
Public administration	15.4	10.7	20.0	15.43
Engineering				
Goods producing industries	32.4	25.0	39.8	11.63
Professional, scientific and technical services	39.7	32.4	47.1	9.46
Educational services	20.5	14.5	26.6	14.92
Health care and social assistance	x	x	x	x
All other services industries	x	x	x	x
Public administration	4.4	1.9	6.8	28.83 E
Physical sciences				
Goods producing industries	x	x	x	x
Professional, scientific and technical services	22.0	14.8	29.2	16.66 E
Educational services	46.1	37.5	54.6	9.51
Health care and social assistance	x	x	x	x
All other services industries	10.9	5.3	16.5	26.17 E
Public administration	11.4	5.7	17.1	25.57 E
Social sciences				
Goods producing industries	x	x	x	x
Professional, scientific and technical services	4.4	2.6	6.2	20.73 E
Educational services	51.3	46.2	56.3	5.05
Health care and social assistance	31.9	27.2	36.7	7.52
All other services industries	3.3	1.6	5.1	26.80 E
Public administration	8.6	5.5	11.7	18.40 E
Humanities				
Goods producing industries	x	x	x	x
Professional, scientific and technical services	x	x	x	x
Educational services	82.7	77.6	87.9	3.19
Health care and social assistance	x	x	x	x
All other services industries	5.9	2.8	8.9	26.39 E
Public administration	6.1	2.8	9.4	27.56 E
Other fields of study				
Goods producing industries	x	x	x	x
Professional, scientific and technical services	4.1	1.8	6.5	28.96 E
Educational services	88.4	84.8	91.9	2.04
Health care and social assistance	x	x	x	x
All other services industries	3.9	1.8	6.0	27.73 E
Public administration	x	x	x	x
All fields of study				
Goods producing industries	5.4	4.1	6.7	12.49
Professional, scientific and technical services	13.3	11.5	15.1	6.98
Educational services	57.7	55.1	60.3	2.29
Health care and social assistance	11.0	9.5	12.5	6.98
All other services industries	5.0	3.8	6.1	11.91
Public administration	7.6	6.2	9.0	9.43

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E use with caution

Source: Survey of Earned Doctorates, Statistics Canada, 2005/2006.

Table A.1.14

Expected earnings of doctoral graduates with firm employment plans for the coming year, 2005/2006

	Proportion	Confidence limits (95%)		Coefficient of variation
	percent	lower	upper	percent
Life sciences				
Under $35,000	5.0	2.4	7.7	27.01 E
$35,000 to $44,999	9.0	4.9	13.0	23.07 E
$45,000 to $54,999	15.7	10.9	20.5	15.62
$55,000 to $64,999	31.1	24.8	37.3	10.29
$65,000 to $74,999	17.5	12.7	22.2	13.83
$75,000 and over	21.8	16.8	26.7	11.61
Engineering				
Under $35,000	x	x	x	x
$35,000 to $44,999	x	x	x	x
$45,000 to $54,999	7.5	3.9	11.2	24.72 E
$55,000 to $64,999	22.7	17.3	28.1	12.16
$65,000 to $74,999	22.0	15.3	28.7	15.48
$75,000 and over	40.9	33.3	48.5	9.48
Physical sciences				
Under $35,000	11.5	6.3	16.6	22.76 E
$35,000 to $44,999	x	x	x	x
$45,000 to $54,999	18.4	12.3	24.6	16.99 E
$55,000 to $64,999	18.2	11.2	25.2	19.66 E
$65,000 to $74,999	20.1	13.2	26.9	17.45 E
$75,000 and over	28.9	21.1	36.6	13.70
Social sciences				
Under $35,000	10.9	7.6	14.3	15.65
$35,000 to $44,999	13.9	10.6	17.1	11.89
$45,000 to $54,999	19.9	15.9	23.9	10.29
$55,000 to $64,999	23.9	19.5	28.3	9.42
$65,000 to $74,999	13.6	10.3	17.0	12.52
$75,000 and over	17.7	13.6	21.8	11.67
Humanities				
Under $35,000	29.7	23.7	35.6	10.23
$35,000 to $44,999	6.2	3.3	9.1	24.12 E
$45,000 to $54,999	19.5	13.6	25.5	15.48
$55,000 to $64,999	28.1	21.8	34.4	11.35
$65,000 to $74,999	8.9	4.4	13.3	25.69 E
$75,000 and over	7.6	4.2	11.1	23.04 E
Other fields of study				
Under $35,000	10.2	6.8	13.7	17.29 E
$35,000 to $44,999	5.0	2.5	7.4	25.16 E
$45,000 to $54,999	8.8	5.8	11.9	17.44 E
$55,000 to $64,999	15.6	11.9	19.4	12.23
$65,000 to $74,999	20.9	16.7	25.1	10.17
$75,000 and over	39.4	34.3	44.5	6.60
All fields of study				
Under $35,000	11.3	9.7	12.9	7.27
$35,000 to $44,999	7.2	5.9	8.5	9.01
$45,000 to $54,999	14.7	12.9	16.5	6.17
$55,000 to $64,999	23.0	20.8	25.2	4.86
$65,000 to $74,999	17.2	15.2	19.2	5.89
$75,000 and over	26.5	24.2	28.8	4.37

x suppressed to meet the confidentiality requirements of the *Statistics Act*

E use with caution

Source: Survey of Earned Doctorates, Statistics Canada, 2005/2006.

Table A.1.15

Type of further training or study for doctoral graduates with firm plans for further training or study, 2005/2006

	Proportion	Confidence limits (95%)		Coefficient of variation
	percent	lower	upper	percent
Life sciences				
Postdoctoral fellowship	78.5	74.8	82.2	2.40
Other[1]	21.5	17.8	25.2	8.75
Engineering				
Postdoctoral fellowship	67.4	59.4	75.5	6.09
Other[1]	32.6	24.5	40.6	12.61
Physical sciences				
Postdoctoral fellowship	67.3	61.9	72.6	4.05
Other[1]	32.7	27.4	38.1	8.34
Social sciences				
Postdoctoral fellowship	84.4	78.6	90.1	3.48
Other[1]	15.6	9.9	21.4	18.78 E
Humanities				
Postdoctoral fellowship	86.2	77.5	95.0	5.18
Other[1]	x	x	x	x
Other fields of study				
Postdoctoral fellowship	71.2	53.6	88.9	12.61
Other[1]	28.8	11.1	46.4	31.21 E
All fields of study				
Postdoctoral fellowship	75.0	72.5	77.6	1.72
Other[1]	25.0	22.4	27.5	5.18

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E use with caution

1. Includes postdoctoral research associateships, traineeships, internships, clinical residencies and other, unspecified training or study options.

Source: Survey of Earned Doctorates, Statistics Canada, 2005/2006.

Table A.1.16

Primary activity for doctoral graduates with firm plans for further training or study, 2005/2006

	Proportion	Confidence limits (95%)		Coefficient of variation
	percent	lower	upper	percent
Life sciences				
Research and development	93.0	90.7	95.3	1.26
Professional services	F	F	F	F
Other	5.1	3.2	7.0	19.27 E
Engineering				
Research and development	93.5	89.5	97.6	2.22
Professional services	x	x	x	x
Other	x	x	x	x
Physical sciences				
Research and development	95.5	93.4	97.6	1.12
Professional services	x	x	x	x
Other	4.0	2.0	6.0	25.82 E
Social sciences				
Research and development	85.5	80.3	90.7	3.10
Professional services	6.4	2.5	10.3	31.20 E
Other	8.1	4.4	11.8	23.21 E
Humanities				
Research and development	85.9	76.7	95.0	5.41
Professional services	x	x	x	x
Other	x	x	x	x
Other fields of study				
Research and development	79.8	67.3	92.4	8.02
Professional services	x	x	x	x
Other	x	x	x	x
All fields of study				
Research and development	92.2	90.8	93.7	0.82
Professional services	2.1	1.3	3.0	20.94 E
Other	5.6	4.4	6.9	11.1

x suppressed to meet the confidentiality requirements of the *Statistics Act*

E use with caution

F too unreliable to be published

Source: Survey of Earned Doctorates, Statistics Canada, 2005/2006.

Table A.1.17

Main source of financial support for doctoral graduates undertaking postdoctoral study or research, 2005/2006

	Proportion	Confidence limits (95%)		Coefficient of variation
	percent	lower	upper	percent
Life sciences				
Funding agencies	50.5	46.2	54.8	4.30
Industry / Business	3.7	2.3	5.0	19.01 E
College or university	15.7	12.5	18.9	10.47
Private foundation	2.9	1.8	4.1	20.12 E
Nonprofit, other than private foundation	3.9	2.5	5.2	17.77 E
Other	13.7	10.7	16.8	11.46
Unknown	9.6	7.3	12.0	12.47
Engineering				
Funding agencies	42.0	33.5	50.6	10.34
Industry / Business	10.6	5.5	15.6	24.34 E
College or university	37.0	28.6	45.4	11.54
Private foundation	x	x	x	x
Nonprofit, other than private foundation	x	x	x	x
Other	x	x	x	x
Unknown	6.1	2.5	9.7	29.80 E
Physical sciences				
Funding agencies	43.5	37.8	49.1	6.64
Industry / Business	8.0	4.9	11.1	20.00 E
College or university	28.3	23.3	33.3	9.01
Private foundation	x	x	x	x
Nonprofit, other than private foundation	2.5	1.3	3.8	25.76 E
Other	8.3	4.9	11.7	20.84 E
Unknown	7.3	4.1	10.4	21.96 E
Social sciences				
Funding agencies	63.9	56.9	70.9	5.57
Industry / Business	x	x	x	x
College or university	23.4	17.4	29.4	13.01
Private foundation	x	x	x	x
Nonprofit, other than private foundation	x	x	x	x
Other	x	x	x	x
Unknown	x	x	x	x
Humanities				
Funding agencies	66.5	52.7	80.2	10.52
Industry / Business	x	x	x	x
College or university	33.5	19.8	47.3	20.86 E
Private foundation	x	x	x	x
Nonprofit, other than private foundation	x	x	x	x
Other	x	x	x	x
Unknown	x	x	x	x
Other fields of study				
Funding agencies	35.8	17.7	53.9	25.78 E
Industry / Business	x	x	x	x
College or university	x	x	x	x
Private foundation	x	x	x	x
Nonprofit, other than private foundation	x	x	x	x
Other	31.6	12.3	50.9	31.13 E
Unknown	x	x	x	x
All fields of study				
Funding agencies	49.2	46.4	52.1	2.93
Industry / Business	5.0	3.8	6.2	12.15
College or university	22.8	20.4	25.2	5.26
Private foundation	2.3	1.6	3.1	16.56
Nonprofit, other than private foundation	2.8	2.0	3.6	14.51
Other	10.1	8.2	11.9	9.34
Unknown	7.8	6.3	9.4	10.10

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E use with caution
Source: Survey of Earned Doctorates, Statistics Canada, 2005/2006.

Table A.1.18

Type of employer for doctoral graduates with firm plans for further training or study, 2005/2006

	Proportion	Confidence limits (95%)		Coefficient of variation
	percent	lower	upper	percent
Life sciences				
Education	89.0	85.7	92.2	1.84
Government	4.8	2.5	7.1	24.40 E
Private sector	4.6	2.5	6.8	23.60 E
Self-employed	x	x	x	x
Other / Don't know	F	F	F	F
Engineering				
Education	79.3	69.6	88.9	6.20
Government	x	x	x	x
Private sector	13.2	4.9	21.6	32.17 E
Self-employed	x	x	x	x
Other / Don't know	x	x	x	x
Physical sciences				
Education	79.7	73.6	85.7	3.87
Government	13.3	8.1	18.5	19.95 E
Private sector	5.4	2.0	8.8	32.28 E
Self-employed	x	x	x	x
Other / Don't know	x	x	x	x
Social sciences				
Education	88.5	81.3	95.7	4.16
Government	x	x	x	x
Private sector	x	x	x	x
Self-employed	x	x	x	x
Other / Don't know	x	x	x	x
Humanities				
Education	100.0	100.0	100.0	0.00
Government	x	x	x	x
Private sector	x	x	x	x
Self-employed	x	x	x	x
Other / Don't know	x	x	x	x
Other fields of study				
Education	95.7	88.3	100.0	3.93
Government	x	x	x	x
Private sector	x	x	x	x
Self-employed	x	x	x	x
Other / Don't know	x	x	x	x
All fields of study				
Education	86.0	83.4	88.5	1.54
Government	6.9	5.1	8.8	13.70
Private sector	5.2	3.5	6.9	16.81 E
Self-employed	x	x	x	x
Other / Don't know	1.7	0.8	2.6	26.82 E

x suppressed to meet the confidentiality requirements of the *Statistics Act*

E use with caution

F too unreliable to be published

Source: Survey of Earned Doctorates, Statistics Canada, 2005/2006.

Table A.1.19.1
Characteristics of doctoral graduates by intending country of residence, 2005/2006

	Graduates intending to remain in Canada			
	Proportion	Confidence limits (95%)		Coefficient of variation
	percent	lower	upper	percent
Proportion of graduates:				
With firm plans to work or study	73.1	71.5	74.7	1.13
Without firm plans to work or study[1]	26.9	25.3	28.5	3.07
Of graduates with firm plans the proportion who have:				
Same employment / position as prior to PhD completion	31.6	29.6	33.6	3.22
Signed contract or made definite commitment for other work or study	68.4	66.4	70.4	1.49
Of graduates without firm plans the proportion who are:				
in negotiations with one of more organizations	23.6	20.6	26.7	6.51
seeking position, but have no specific prospects	76.4	73.3	79.4	2.02
Country of birth				
Born in Canada	60.5	58.9	62.2	1.38
Born in the United States	2.2	1.7	2.7	11.71
Born in another country	37.3	35.6	38.9	2.22
Citizenship				
Canadian citizenship	71.0	69.4	72.6	1.16
Dual citizenship (Canadian and another)	11.5	10.4	12.6	4.86
Non-Canadian citizen	17.5	16.1	18.9	3.97
Gender				
Men	54.3	53.2	55.5	1.07
Women	45.7	44.5	46.8	1.27
Marital status				
Never legally married (single, not common-law)	24.1	22.6	25.6	3.21
Married or living common-law	71.3	69.7	72.9	1.15
Other marital status (separated, divorced, widowed)	4.6	3.9	5.3	8.11
Dependents[2]				
Has dependents	38.4	36.6	40.2	2.40
Has no dependents	61.6	59.8	63.4	1.49
Fields of study				
Life sciences	27.1	25.5	28.7	2.99
Engineering	14.5	13.2	15.7	4.50
Physical sciences	14.2	12.9	15.5	4.63
Social sciences	17.3	16.0	18.5	3.68
Humanities	11.2	10.2	12.3	4.71
Other fields of study	15.7	14.4	17.0	4.26

1. Excludes respondents who reported no plans to work or study, other plans (specified) or did not respond.
2. Excludes spouse/partner.

Source: Survey of Earned Doctorates, Statistics Canada, 2005/2006.

Table A.1.19.2

Characteristics of doctoral graduates by intending country of residence, 2005/2006

	Graduates intending to move to another country			
	Proportion	Confidence limits (95%)		Coefficient of variation
	percent	lower	upper	percent
Proportion of graduates:				
With firm plans to work or study	75.8	72.8	78.8	2.00
Without firm plans to work or study[1]	24.2	21.2	27.2	6.27
Of graduates with firm plans the proportion who have:				
Same employment / position as prior to PhD completion	11.2	8.9	13.4	10.47
Signed contract or made definite commitment for other work or study	88.8	86.6	91.1	1.31
Of graduates without firm plans the proportion who are:				
in negotiations with one of more organizations	42.6	35.6	49.6	8.36
seeking position, but have no specific prospects	57.4	50.4	64.4	6.21
Country of birth				
Born in Canada	44.8	41.6	48.1	3.68
Born in the United States	5.6	4.1	7.2	13.97
Born in another country	49.6	46.3	52.9	3.40
Citizenship				
Canadian citizenship	54.8	51.5	58.1	3.04
Dual citizenship (Canadian and another)	11.5	9.3	13.7	9.72
Non-Canadian citizen	33.7	30.6	36.8	4.70
Gender				
Men	60.8	57.9	63.7	2.44
Women	39.2	36.3	42.1	3.78
Marital status				
Never legally married (single, not common-law)	35.9	32.6	39.1	4.65
Married or living common-law	61.1	57.8	64.4	2.77
Other marital status (separated, divorced, widowed)	3.1	1.9	4.3	19.74[E]
Dependents[2]				
Has dependents	25.6	22.6	28.5	5.90
Has no dependents	74.4	71.5	77.4	2.02
Fields of study				
Life sciences	36.3	33.2	39.5	4.47
Engineering	15.2	12.6	17.8	8.68
Physical sciences	23.4	20.6	26.2	6.18
Social sciences	11.6	9.6	13.6	8.80
Humanities	6.2	4.7	7.6	11.97
Other fields of study	7.3	5.6	8.9	11.27

[E] use with caution

1. Excludes respondents who reported no plans to work or study, other plans (specified) or did not respond.
2. Excludes spouse/partner.

Source: Survey of Earned Doctorates, Statistics Canada, 2005/2006.

Table A.1.19.3

Characteristics of doctoral graduates by intending country of residence, 2005/2006

	Graduates intending to remain in Canada			
	Proportion	Confidence limits (95%)		Coefficient of variation
	percent	lower	upper	percent
Proportion of graduates:				
With firm plans to work or study	77.8	76.3	79.3	0.99
Without firm plans to work or study[1]	80.2	77.6	82.7	1.62
Of graduates with firm plans the proportion who have:				
same employment / position as prior to PhD completion	90.9	89.0	92.8	1.06
signed contract or made definite commitment for other work or study	73.0	71.1	74.9	1.32
Of graduates without firm plans the proporation who are:				
in negotiations with one of more organizations	69.2	63.5	74.9	4.18
seeking position, but have no specific prospects	84.3	81.6	87.0	1.63
Country of birth				
Born in Canada	83.1	81.6	84.7	0.93
Born in the United States	56.7	49.8	67.6	7.74
Born in another country	73.3	71.1	75.5	1.54
Citizenship				
Canadian citizenship	82.4	81.0	83.8	0.86
Dual citizenship (Canadian and another)	78.3	74.5	82.2	2.52
Non-Canadian citizen	65.3	61.8	68.7	2.71
Gender				
Men	76.6	74.8	78.5	1.22
Women	81.0	79.3	82.7	1.07
Marital status				
Never legally married (single, not common-law)	71.0	68.2	73.8	2.01
Married or living common-law	80.9	79.5	82.4	0.92
Other marital status (separated, divorced, widowed)	84.4	78.9	90.0	3.36
Dependents[2]				
Has dependents	84.5	82.5	86.4	1.17
Has no dependents	75.0	73.3	76.7	1.15
Fields of study				
Life sciences	73.2	70.6	75.8	1.81
Engineering	77.7	74.0	81.4	2.43
Physical sciences	69.0	65.4	72.7	2.69
Social sciences	84.5	81.9	87.1	1.57
Humanities	87.0	84.0	89.9	1.73
Other fields of study	88.8	86.4	91.3	1.40

1. Excludes respondents who reported no plans to work or study, other plans (specified) or did not respond.
2. Excludes spouse/partner.

Source: Survey of Earned Doctorates, Statistics Canada, 2005/2006.

Table A.1.19.4

Characteristics of doctoral graduates by intending country of residence, 2005/2006

	Graduates intending to move to another country			
	Proportion	Confidence limits (95%)		Coefficient of variation
	percent	lower	upper	percent
Proportion of graduates:				
With firm plans to work or study	22.2	20.7	23.7	3.46
Without firm plans to work or study[1]	19.8	17.3	22.4	6.55
Of graduates with firm plans the proportion who have:				
same employment / position as prior to PhD completion	9.1	7.2	11.0	10.57
signed contract or made definite commitment for other work or study	27.0	25.1	28.9	3.58
Of graduates without firm plans the proporation who are:				
in negotiations with one of more organizations	30.8	25.1	36.5	9.38
seeking position, but have no specific prospects	15.7	13.0	18.4	8.80
Country of birth				
Born in Canada	16.9	15.3	18.4	4.60
Born in the United States	41.3	32.4	50.2	11.01
Born in another country	26.7	24.5	28.9	4.22
Citizenship				
Canadian citizenship	17.6	16.2	19.0	4.06
Dual citizenship (Canadian and another)	21.7	17.8	25.5	9.10
Non-Canadian citizen	34.7	31.3	38.2	5.09
Gender				
Men	23.4	21.5	25.2	4.01
Women	19.0	17.3	20.7	4.55
Marital status				
Never legally married (single, not common-law)	29.0	26.2	31.8	4.93
Married or living common-law	19.1	17.6	20.5	3.90
Other marital status (separated, divorced, widowed)	15.6	10.0	21.1	18.24 [E]
Dependents[2]				
Has dependents	15.5	13.6	17.5	6.38
Has no dependents	25.0	23.3	26.7	3.46
Fields of study				
Life sciences	26.8	24.2	29.4	4.94
Engineering	22.3	18.6	26.0	8.46
Physical sciences	31.0	27.3	34.6	6.00
Social sciences	15.5	12.9	18.1	8.55
Humanities	13.0	10.1	16.0	11.53
Other fields of study	11.2	8.7	13.6	11.10

E use with caution

1. Excludes respondents who reported no plans to work or study, other plans (specified) or did not respond.
2. Excludes spouse/partner.

Source: Survey of Earned Doctorates, Statistics Canada, 2005/2006.

Appendix 2 – Special tables

Table A.2.1
Amount of financial support for graduates undertaking postdoctoral student or research, 2005/2006

	Proportion	Confidence limits (95%)		Coefficient of variation
	percent	lower	upper	percent
Life sciences				
Under $35,000	22.4	17.6	27.1	10.84
$35,000 to $54,999	69.2	64.1	74.4	3.79
$55,000 to $74,999	6.7	4.0	9.4	20.77 E
$75,000 or more	F	F	F	F
Engineering				
Under $35,000	37.0	26.1	47.8	14.90
$35,000 to $54,999	54.9	43.7	66.1	10.40
$55,000 to $74,999	F	F	F	F
$75,000 or more	x	x	x	x
Physical sciences				
Under $35,000	17.9	12.1	23.7	16.44
$35,000 to $54,999	69.4	62.6	76.3	5.03
$55,000 to $74,999	10.3	6.1	14.5	20.63 E
$75,000 or more	x	x	x	x
Social sciences				
Under $35,000	22.6	13.8	31.4	19.84 E
$35,000 to $54,999	67.5	57.8	77.1	7.28
$55,000 to $74,999	8.8	3.5	14.2	30.96 E
$75,000 or more	x	x	x	x
Humanities				
Under $35,000	47.1	27.6	66.6	21.06 E
$35,000 to $54,999	37.5	18.6	56.4	25.62 E
$55,000 to $74,999	x	x	x	x
$75,000 or more	x	x	x	x
Other fields of study				
Under $35,000	54.4	28.8	80.0	24.0 E
$35,000 to $54,999	F	F	F	F
$55,000 to $74,999	x	x	x	x
$75,000 or more	x	x	x	x
All fields of study				
Under $35,000	24.6	21.3	28.0	6.8
$35,000 to $54,999	65.6	62.0	69.2	2.8
$55,000 to $74,999	8.1	6.2	10.0	12.2
$75,000 or more	F	F	F	F

x suppressed to meet the confidentiality requirements of the *Statistics Act*
E use with caution
F too unreliable to be published
Source: Survey of Earned Doctorates, Statistics Canada, 2005/2006.

Table A.2.2
Postgraduate plans of foreign-born doctoral graduates, 2005/2006

	Proportion	Confidence limits (95%)		Coefficient of variation
	percent	lower	upper	percent
Proportion of foreign-born students who:				
became a landed immigrant in Canada	77.8	75.5	80.1	1.52
were visa students when first registered in program	53.5	51.0	56.1	2.45
with firm plans for the following years	63.3	60.3	66.4	2.43
are seeking position, but have no specific prospects	25.5	22.8	28.2	5.45
Proportion of visa students who had became landed immigrants by graduation	60.2	56.2	64.3	3.43
Proportion of graduates with firm plans for the following year who have:				
plans for employment	48.5	44.2	52.8	4.52
plans for further study	51.5	47.2	55.8	4.25
Proportion of foreign-born non visa students who:				
became landed immigrants 3 years or more prior to start of program and had firm plans for the following year	73.1	67.6	78.6	3.85
became landed immigrants the year of, or within 3 years to, start of program and had firm plans for the following year	53.7	46.3	61.1	7.01

Source: Survey of Earned Doctorates, Statistics Canada, 2005/2006.

Table A.2.3.1

Type of further study or training, primary activity, source of financial support and type of employer for Foreign and Canadian-born graduates, 2005/2006

	Foreign-born graduates			
	Proportion	Confidence limits (95%)		Coefficient of variation
	percent	lower	upper	percent
Proportion with firm plans for other training or study	51.5	47.2	55.8	4.25
Proportion with a postdoctoral fellowship	73.4	67.7	79.1	3.91
Primary activity				
Research and development	95.3	92.6	98.0	1.42
Teaching	x	x	x	x
Management, administration, or other	F	F	F	F
Professional services	x	x	x	x
Source of financial support for further studies or research				
Funding agencies	43.0	37.2	48.8	6.81
Industry / Business	5.6	2.9	8.4	24.67 E
College or university	31.2	25.3	37.1	9.52
Private foundation	x	x	x	x
Non-profit, other than private foundation	F	F	F	F
Other	7.5	4.0	11.0	23.43 E
Unknown	8.4	4.9	12.0	21.50 E
Amount of financial support for further studies or research				
Under $35,000	29.0	22.9	35.1	10.62
$35,000 to $54,999	62.8	56.4	69.3	5.21
$55,000 to $74,999	7.1	4.0	10.2	21.90 E
$75,000 or more	x	x	x	x
Type of employer or institution of further studies or research				
Education	86.4	81.9	90.9	2.65
Government	6.1	3.1	9.1	24.81 E
Private sector	5.8	2.6	9.0	27.98 E
Self-employed	x	x	x	x
Other / Don't know	x	x	x	x

x suppressed to meet the confidentiality requirements of the *Statistics Act*

E use with caution

F too unreliable to be published

Source: Survey of Earned Doctorates, Statistics Canada, 2005/2006.

Table A.2.3.2

Type of further study or training, primary activity, source of financial support and type of employer for Foreign and Canadian-born graduates, 2005/2006

	Canadian-born graduates			
	Proportion	Confidence limits (95%)		Coefficient of variation
	percent	lower	upper	percent
Proportion with firm plans for other training or study	42.6	39.7	45.4	3.43
Proportion with a postdoctoral fellowship	75.3	71.1	79.6	2.88
Primary activity				
Research and development	90.0	87.1	93.0	1.67
Teaching	3.4	1.7	5.1	25.07 E
Management, administration, or other	4.0	2.1	5.9	24.54 E
Professional services	2.5	0.9	4.1	32.42 E
Source of financial support for further studies or research				
Funding agencies	54.3	49.4	59.2	4.62
Industry / Business	4.2	2.2	6.3	24.71 E
College or university	16.5	12.9	20.1	11.11
Private foundation	2.9	1.4	4.5	26.65 E
Non-profit, other than private foundation	2.6	1.2	4.1	28.41 E
Other	11.9	8.5	15.2	14.40
Unknown	7.5	4.9	10.2	18.07 E
Amount of financial support for further studies or research				
Under $35,000	21.7	17.5	25.9	9.88
$35,000 to $54,999	67.6	62.8	72.3	3.56
$55,000 to $74,999	8.5	5.8	11.2	16.37
$75,000 or more	2.2	0.8	3.7	32.63 E
Type of employer or institution of further studies or research				
Education	84.9	81.4	88.5	2.13
Government	7.8	5.1	10.6	17.79 E
Private sector	5.0	2.9	7.2	22.04 E
Self-employed	x	x	x	x
Other / Don't know	1.8	0.7	3.0	32.85 E

x suppressed to meet the confidentiality requirements of the *Statistics Act*

E use with caution

Source: Survey of Earned Doctorates, Statistics Canada, 2005/2006.

Table A.2.4

Regression results: The decision to leave Canada, 2005/2006

	Proportion intending to live outside of Canada	Confidence limits (95%)		Coefficient of variation	Logistic regression coefficient Leaving=1 (n=1837)	P-value	Odds ratio
		lower	upper				
Total	21.3	20.0	22.7	0.03	...	...	...
Intercept	...	...	...	...	0.45	0.1337	...
Immigration status							
Canadian by birth[1]	17.0	15.4	18.6	0.05	...	...	...
Visa student and landed immigrant	13.1	9.9	16.3	0.12	-0.88	<.0001	0.74
Visa student, non-landed immigrant	59.2	53.2	65.2	0.05	1.66	<.0001	9.27
Non-visa student, recent landed immigrant	21.7	16.6	26.9	0.12	-0.03	0.8396	1.71
Non-visa student, non-recent landed immigrant	22.6	18.7	26.5	0.09	-0.18	0.1317	1.48
Gender							
Female[1]	19.0	17.2	20.9	0.05	...	...	...
Male	23.1	21.1	25.0	0.04	0.07	0.5113	1.07
Marital status							
Single (never married, separated, divorced, widowed)[1]	27.3	24.6	30.0	0.05	...	...	...
Married or common law	18.7	17.1	20.2	0.04	-0.09	0.0955	0.83
Dependents							
No dependents[1]	24.7	22.9	26.5	0.04	...	...	...
One or more dependents	15.4	13.3	17.4	0.07	-0.35	0.0053	0.71
Field of study							
Life sciences	26.5	23.7	29.3	0.05	0.34	0.0002	2.04
Engineering	22.2	18.3	26.2	0.09	-0.02	0.9165	1.43
Physical sciences	30.3	26.5	34.1	0.06	0.43	<.0001	2.23
Social sciences	15.2	12.4	18.0	0.09	-0.18	0.1190	1.21
Humanities[1]	13.7	10.4	17.0	0.12	...	...	...
All other fields of study	10.7	8.1	13.4	0.13	-0.19	0.2121	1.20
Plans for the future							
Further training or studies	32.8	30.1	35.5	0.04	0.51	<.0001	2.07
Employment	13.1	11.2	14.9	0.07	-0.28	0.0001	0.94
No plans / Other[1]	19.3	16.8	21.8	0.07	...	...	...
Age	...	...	...	...	-0.05	<.0001	0.95
Mean age of non-leaver	36.0	35.6	36.5	0.01	...	...	...
Mean age of leaver	33.0	31.9	33.1	0.01	...	...	...

... not applicable

1. These categories have been used as base groups in the logistic regression.

Source: Survey of Earned Doctorates, Statistics Canada, 2005/2006.

Culture, Tourism and the Centre for Education Statistics

Research Papers

Cumulative index

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The **Culture Statistics Program** creates and disseminates timely and comprehensive information on the culture sector in Canada. The program manages a dozen regular census surveys and databanks to produce data that support policy decision and program management requirements. Issues include the economic impact of culture, the consumption of culture goods and services, government, personal and corporate spending on culture, the culture labour market, and international trade of culture goods and services. Analysis is also published in *Focus on Culture* (87-004-XIE, free, http://www.statcan.ca/bsolc/english/bsolc?catno=87-004-X).

The **Tourism Statistics Program** provides information on domestic and international tourism. The program covers the Canadian Travel Survey and the International Travel Survey. Together, these surveys shed light on the volume and characteristics of trips and travellers to, from and within Canada.

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81-595-M No. 032	Survey of Earned Doctorates: A Profile of Doctoral Degree Recipients
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81-595-M No. 062	Salaries and Salary Scales of Full-time Teaching Staff at Canadian Universities, 2007/2008: Preliminary Report
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81-595-M No. 069	Doctorate Education in Canada: Findings from the Survey of Earned Doctorates, 2005/2006